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January 26, 2021

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VIA E-FILING

Cynthia T. Brown
Chief of the Section of Administration
Office of Proceedings
Surface Transportation Board
395 E Street, SW
Washington DC 20423-0001

ENTERED
Office of Proceedings
January 26, 2021
Part of
Public Record

Re: BNSF Railway Company – Terminal Trackage Rights – The Kansas City
Southern Railway Company And Union Pacific Railroad Company,
FD 32760 (Sub-No. 46)

Dear Ms. Brown:

In response to the Surface Transportation Board's Decision Nos. 8 and 9, The Kansas City Southern Railway Company ("KCS") hereby files, via e-filing, KCS's Opening Statement and Evidence on Compensation Concerning BNSF's Use of the Rosebluff Lead. KCS's response is being filed in both a "Public Version" and a "Highly Confidential" version. If there are any questions concerning this e-filing, please contact me by telephone at (202) 663-7823 or by e-mail at wmullins@bakerandmiller.com. If I am unavailable, you may contact my associate, Crystal M. Zorbaugh, by telephone at (202) 663-7831 or by e-mail at czorbaugh@bakerandmiller.com.

Sincerely,

/s/ William A. Mullins

William A. Mullins

Enclosures

cc: Parties of Record

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

FD 32760 (SUB-NO. 46)

**BNSF RAILWAY COMPANY
-- TERMINAL TRACKAGE RIGHTS APPLICATION --
THE KANSAS CITY SOUTHERN RAILWAY COMPANY AND
UNION PACIFIC RAILROAD COMPANY**

**KCS'S OPENING STATEMENT AND EVIDENCE ON COMPENSATION
CONCERNING BNSF'S USE OF THE ROSEBLUFF LEAD**

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January 26, 2021

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**BEFORE THE
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-- TERMINAL TRACKAGE RIGHTS APPLICATION --
THE KANSAS CITY SOUTHERN RAILWAY COMPANY AND
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**KCS'S OPENING STATEMENT AND EVIDENCE ON COMPENSATION
CONCERNING BNSF'S USE OF THE ROSEBLUFF LEAD**

RECENT BACKGROUND AND SUMMARY¹

In Decision No. 8, FD 32670 (Sub-No. 46)(STB served Feb. 21, 2020), the Board (1) established conditions for BNSF's use of the jointly-owned Rosebluff Lead to directly serve a shipper facility in West Lake Charles, La. (Lyondell) pursuant to Board-authorized terminal trackage rights granted in Decision No. 3 FD 32670 (Sub-No. 46)(STB served July 5, 2016); (2) directed the parties to submit a joint procedural schedule to govern discovery and evidentiary submissions on compensation;² and (3) ordered KCS, UP, and BNSF to provide information concerning the appropriate methodology the Board should apply to determine the compensation BNSF should pay to serve the Lyondell facility.³ See Decision No. 8 at 1.

¹ KCS adopts the various short citations and abbreviations that it previously used throughout this proceeding.

² Decision No. 9, FD 32670 (Sub-No. 46) (STB served April 1, 2020) adopted the parties' jointly proposed procedural schedule and granted a joint request to appoint an administrative law judge to resolve any discovery disputes.

³ Decision No. 8 states, "In this decision, pursuant to 49 U.S.C. § 11102(a), the Board establishes conditions for BNSF's use of the Rosebluff Lead to directly serve the Lyondell facility and sets forth a procedure for setting compensation." In Decision No. 8, the Board made it clear that it

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It is clear from Decision No. 8 (and for that matter Decision No. 6)⁴ – which discusses extensively the predilection of the Board and its predecessor, the Interstate Commerce Commission, to apply the SSW Compensation in trackage rights cases – that the Board, unless persuaded otherwise, intends to apply the SSW Compensation methodology to determine compensation in this proceeding. In this proceeding, the Board should not apply a strict application of the SSW Compensation approach and should instead apply a Market-Based Access Fee.

The Board acknowledged in Decision No. 8 KCS’s concerns about the appropriateness of applying the SSW Compensation methodology here, but it declined to address KCS’s criticisms and/or evaluate the methodological variants proposed. Instead, the Board devoted several paragraphs in its section entitled Procedure for Setting Compensation explaining how the “SSW Compensation method is a flexible approach that can be (and has been) modified to account for the particular facts of each case.” KCS recognizes that in many situations SSW Compensation may be appropriate and flexible. But, for the reasons articulated in KCS’s previous submissions as supplemented by KCS’s testimony here, a strict application of SSW Compensation fails to fully compensate KCS and is certainly not consistent with condemnation principles. Nonetheless, because of the Board’s decisions requesting information on SSW Compensation and, despite KCS’s concerns, KCS felt compelled to retain Dr. Kevin Neels, of Brattle Group, who has

was setting compensation to serve Lyondell only, despite BNSF’s assertions in its December 18, 2020 filing that the Board was seeking to establish “one size fits all” compensation.

⁴ In Decision No. 6, FD 32670 (Sub-No. 46) (STB served Dec. 7, 2018) the Board asked the parties about various considerations and calculations related to compensation and first revealed its predisposition to applying SSW Compensation. The Board requested compensation information specifically related to the SSW Compensation methodology and directed the parties to provide answers to three questions on compensation, the third of which sought through five subparts information related to SSW Compensation.

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prepared, consistent with Board policy and procedures, SSW Compensation⁵ for the Rosebluff Lead.

While Dr. Neels's evidence is a fundamentally sound application of SSW Compensation, KCS is also offering the testimony of Professor Julie Carey, who shows that SSW Compensation will not make KCS whole. To summarize Professor Carey's testimony, application of SSW Compensation would (1) continue to cause irreparable economic harm to KCS and inhibit its progress towards revenue adequacy; (2) perpetuate an artificially low and below-market BNSF access fee; (3) be inconsistent with general economic and regulatory principles in establishing rates; and (4) be inferior to a Market-Based Access Fee.

KCS also includes a verified statement from Nancie G. Marzulla, founding partner of Marzulla Law, LLC, a Washington, D.C.-based law firm ("Marzulla VS"), which demonstrates and explains why the application of SSW Compensation is inconsistent with condemnation principles under the Fifth Amendment and fails to compensate KCS in a manner that puts it in the same economic condition it would have been absent the taking. As recognized by the Board in Decision No. 8 (FN 24), in determining compensation under the Constitution and the statute, the Board must focus on what the owner has lost, not what the taker has gained. See Mo.-K.T.R. Co. v. Kan. City Terminal Ry., 198 I.C.C. 4, 7-8 (1933). In simplest terms, in determining the

⁵ KCS suspects BNSF will offer an SSW Compensation methodology that utilizes RCNLD to calculate the interest rental component of SSW Compensation, which the Board has recognized is the most contentious element. KCS's expert, Dr. Neels, uses Capitalized Earnings ("CE") to calculate the interest rental component because the Board has expressed preference for this methodology in prior cases because CE best values the asset as a going-concern business with income-producing potential. See SSW II, at *14-17. It is Dr. Neels' belief that an SSW Compensation that applies CE is likely superior to one that applies RCNLD given the age of the existing infrastructure and certain other considerations present here. However, given the unique circumstances at play in Lake Charles, KCS does not believe application of SSW Compensation (regardless of how the interest rental component is calculated) will make KCS whole.

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amount of just compensation due in a condemnation proceeding, the Board must ensure that the owner is put in as good a position pecuniarily as if his property had not been taken. See Marzulla VS at 5. SSW Compensation fails to meet that test.

For nearly 24 years, BNSF's below-market access fee has given BNSF an undue competitive advantage over KCS,⁶ an advantage which BNSF seeks to expand through this proceeding. This access has artificially suppressed the earnings that KCS otherwise would have achieved, which, in turn, produces a lower value than what otherwise should apply in a CE approach, making SSW Compensation inconsistent with the condemnation principles and failing to fully compensate KCS for BNSF's access. The only constitutional access fee is to set the compensation payable to KCS based on a Market-Based Access Fee.

ARGUMENT

I. DECISION NO. 8 STRONGLY INDICATES THAT THE BOARD HAS ALREADY INCORRECTLY DECIDED TO APPLY SSW COMPENSATION

Given KCS's concerns⁷ and the legal insufficiency of applying the SSW Compensation methodology to the unique facts of this proceeding, the Board should not apply SSW Compensation. While the Board acknowledged KCS concerns about the appropriateness of applying the methodology here, it declined to address KCS's criticisms or to evaluate the

⁶ BNSF's access to the Lake Charles Area shippers via a combination of switching and haulage rights over the past 24 years has resulted in BNSF gaining, by most estimates and the evidentiary record, approximately half of the linehaul business from shippers on the Rosebluff Lead.

⁷ As the Board recognized in Decision No. 8, in the KCS Reply (June 25, 2018) and the KCS Suppl. (Feb. 4, 2019), KCS expressed numerous concerns over the application of standard SSW Compensation absent modifications by Board, including application of SSW Compensation is (1) inconsistent with §11102(a) and could inhibit competition; (2) does not account for additional costs that KCS might incur from BNSF's presence on the line; (3) was intended to apply to overhead trackage rights; and (4) must be modified to be constitutionally sound.

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methodological variants KCS proposed.⁸ Instead, the Board devoted several paragraphs and a lengthy footnote (FN24) to explaining its justifications for using the SSW Compensation methodology.⁹ This and other language in Decision No. 8 collectively infers that the Board has already decided it would utilize SSW Compensation to determine the compensation due to KCS for BNSF's use of the Rosebluff Lead. To be clear, in Decision No. 8 the Board:

- Recalls that in Decision No. 6 it sought compensation information including “input on various considerations and calculations under the ‘SSW Compensation methodology’;”
- States [b]y considering case-specific facts concerning the market value of the property, the tenant's proportionate use, and the costs associated with such use, SSW Compensation is designed to fairly compensate the owning carrier for the tenant's partial use thereof;¹⁰
- Concludes, with little to no legal support, that the SSW Compensation methodology satisfies the principles of compensation in condemnation proceedings; and
- Orders the parties to engage in discovery and brief the Board on the calculation of compensation due to KCS, including all “the various considerations and calculations required under the SSW Compensation.” Id at 17.

Collectively, the language above and the Board's statement that it “intends to assess fully each party's proposal in the next phase of this proceeding, upon receipt of all necessary data and

⁸ Given the unique circumstances, KCS previously in the KCS Reply (June 25, 2018) and the KCS Suppl. (Feb. 4, 2019) offered the Board considerations it should address as it moved forward with establishing compensation and offered the Board alternative compensation proposals. Rather than repeat here all of KCS's prior argument and evidence concerning compensation, KCS incorporates by reference here its prior recommendations from the KCS Reply and KCS Suppl.

⁹ SSW Compensation (regardless of whether it utilizes RCNLD or CE to calculate the interest rental component) differs from shipper to shipper because it depends on the location of the shipper on the Lead, *i.e.*, how much of the Lead is being used, and the type of commodity being moved, which impacts car types, costs, earnings, and profitability (which is relevant to the CE approach) and the market-based approach being proposed by KCS. Accordingly, the Board cannot set a one-size-fits-all fee, even under SSW Compensation.

¹⁰ Unlike in an overhead trackage rights case, BNSF seeks not only to use the KCS/UP jointly owned Rosebluff Lead but also to take the traffic of the Rosebluff Lead's local customers from UP and KCS. As such, what BNSF proposes hardly qualifies as a partial usage thereof.

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supporting argument”¹¹ clearly infers that the Board has a predisposition to apply SSW Compensation. As such, KCS is compelled to submit an SSW Compensation methodology even though SSW Compensation should not be applied and is not constitutionally sound. Failure to submit such SSW Compensation evidence risked the Board rejecting KCS’s alternative compensation proposals and accepting the terms BNSF (or for that matter UP) offered pursuant to SSW Compensation without KCS being able to present its own SSW Compensation approach.¹² As such, to avoid such an untenable situation, KCS has no choice but to present SSW Compensation evidence and information even though the application of SSW Compensation is legally insufficient for this proceeding.

KCS recognizes that SSW Compensation may be flexible, but for the reasons articulated in KCS’s previous submissions as supplemented by KCS’s testimony here, even a fundamentally sound application of SSW Compensation (as proposed by Dr. Neels in Section II) fails to fully compensate KCS for BNSF’s use of its property. As explained in the next section, applying the

¹¹ Id at 16.

¹² See New England Cent. R.R. Inc. – Trackage Rights Order – Pan Am S. LLC, FD 35842 (STB served Oct. 31, 2017) (rejecting PAS’s argument on Reply that SSW Compensation should not apply in the trackage rights compensation case, and rejecting NECR’s proposed alternative VIP methodology for calculating the interest rental component of SSW Compensation as not conceptually valid); see also New England Cent. R.R. Inc. – Trackage Rights Order – Pan Am S. LLC, FD 35842 (STB served April 26, 2018) (denying petition for reconsideration when NECR raised for the first time on reconsideration whether the manner in which the Board calculated SSW Compensation would allow it as the landlord to earn adequate revenues); see also Public Service Co. of Colo. D/B/A Xcel Energy v. The Burlington N. & Santa Fe Ry. Co., NOR 42057, slip op. at 5 (STB served January 19, 2005) (“PSC Xcel”), reconsideration denied Burlington Northern & Santa Fe Ry. v. STB, 453 F.3d 473, 2006 U.S. App. LEXIS 14749 (“BNSF Ry”) (discussing how the Board’s evidentiary standards were developed in SAC cases to guide the Board in carrying out its statutory obligation to decide each case on a well-developed evidentiary record); see Sunbelt Chlor Alkali P’ship v. Norfolk S. Ry. Co., NOR 42130, slip op. at 12 (STB served June 30, 2016) (“Sunbelt”) (explaining that the Board’s obligation in deciding cases does not include identifying alternatives that parties did not identify, particularly when useable evidence has been submitted by another party).

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SSW Compensation to the unique circumstances of Lake Charles, regardless of how the interest rental component is calculated, will fail to make KCS whole.

II. KCS'S APPLICATION OF SSW COMPENSATION¹³

Although KCS does not believe the Board should set the fee by applying SSW Compensation, KCS retained Dr. Kevin Neels, who determined consistent with Board policy and procedures SSW Compensation¹⁴ for the Rosebluff Lead. The waybill records and documents produced in discovery by the parties allowed Dr. Neels to calculate the current market value of the Rosebluff Lead, determine earnings per railroad, and allocate revenues for the Rosebluff Lead.¹⁵

Calculating SSW Compensation involved several steps. The first step involved calculating the current market value for the Rosebluff Lead. Dr. Neels calculated the value of

¹³ SSW Compensation is the sum of three elements: (a) the variable cost incurred by the owning carrier due to the tenant carrier's operations over the owning carrier's track; (b) the tenant carrier's usage-proportionate share of the track's maintenance and operation expenses; and (c) an interest rental component designed to compensate the owning carrier for the tenant carrier's use of its capital dedicated to the track. See SSW I, 1 I.C.C.2d at 779-80.

¹⁴ Dr. Neels uses CE to calculate the most contentious element of SSW Compensation methodology: the interest rental component. Board policy favors the use of the CE in SSW cases. While there are several valuation methods available, the Board prefers the CE because the CE best values the asset as a going-concern business with income-producing potential; St. Louis Sw. Ry. Co. – Trackage Rights Over Mo. Pacific R.R. Co. – Kan. City to St. Louis, FD 30,000 (Sub-No. 16), 5 I.C.C. 2d 525; 1989 ICC LEXIS 126, at *10 (ICC May 17, 1989) (“[W]e believe the use of the CE (as modified here) represents a practical and reasonable measure of the specific assets required, or consumed, as a result of access.”); Ark. and Mo. R.R. Co. v. Mo. Pacific R.R. Co., FD 31281, 6 I.C.C. 2d 619, 1990 ICC LEXIS 110, at *24 (STB served March 23, 1990) (noting advantages of using CE to evaluate a going concern business). Dr. Neels believes that CE would produce a more realistic number given the age of the infrastructure that comprises the Rosebluff Lead and the fact that RCNLD completely disregards the seven decades of effort, time, and money that KCS and UP's predecessors invested in maintaining and growing the track and extending service to a dozen major industrial facilities.

¹⁵ Dr. Neels' determination of SSW Compensation is fully explained in his verified statement and in his workpapers, which will be submitted in support of his statement.

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the capital assets that make up the Rosebluff Lead, by focusing on the value of the Rosebluff Lead assets to its owners. To do this, he first identified all of the owner traffic that uses the Rosebluff Lead. He then isolated on a movement-by-movement basis the portions of their revenues and costs that can be attributed to the Rosebluff Lead, using standard STB methods. See Neels VS at 15. From the results of these calculations, he calculated the total contribution (defined as revenue minus variable cost as determined by URCS generated by the Rosebluff Lead for its owners.) Id. Then, based on the relationship of each owner's total contribution to an appropriately adjusted measure of enterprise value,¹⁶ he calculated the portions of that value attributable to the Rosebluff Lead. This is known as Capitalized Earnings ("CE"), which provides a measure of the current market value of the Rosebluff Lead.¹⁷ The steps underlying this calculation are explained fully in the Neels VS.

Dr. Neels then used the resulting valuation to calculate an annual interest rental amount by multiplying the valuation by the industry-wide cost of capital rate. This interest rental component (component (c) of SSW Compensation) was then applied to the Rosebluff Lead on a per car mile basis. By applying the fundamental and Board recognized requirements of SSW Compensation, Dr. Neels calculated the interest rental to be \$14.28/per car mile for the Rosebluff Lead. See Neels VS at 44.

¹⁶ Enterprise value is a widely used measure of the overall market value of a public company. It is defined as the sum of the market value of the company's outstanding stock (also referred to as its market capitalization) and the value of its outstanding debt. For both UP and KCS, Dr. Neels calculated these values as of the end of calendar years 2017 and 2018.

¹⁷ The amount of contribution is reflective of current market conditions, including the competitive presence of BNSF. As such, KCS's and UP's earnings are actually lower than they otherwise would be if not for the presence of BNSF. As such, the CE approach does not truly reflect what the actual CE would be if BNSF were seeking access for the first time and had not already been granted access for the past 24 years.

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Typically, SSW Compensation includes component (a), which accounts for the variable cost incurred by the owning carrier due to the tenant carrier's operations over the owning carrier's track. Most commonly, variable costs covered in (a) include dispatching costs and costs related to clearing a track or other operational costs related to maneuvers necessary to mitigate the impact of another carrier's operations (BNSF) or delays associated with that carrier's operations. UP has told KCS that it does not anticipate any significant additional dispatching costs. BNSF has yet to conduct any operations over the Rosebluff Lead, so it is difficult for KCS (or UP for that matter) to quantify operational costs related to mitigating the presence of a third carrier over the Rosebluff Lead at this juncture.¹⁸ In light of these considerations, KCS is not including a calculation for (a); however, KCS continues to believe that BNSF should pay additional compensation when its operations are delayed or cause operational interferences on the Rosebluff Lead, which result in KCS incurring additional costs.¹⁹

Given that KCS's SSW Compensation calculation does not allocate costs for (a), Dr. Neels added the interest rental of \$14.28/per car mile (component (c) of SSW Compensation), to the per car mile actual maintenance and operation costs for the Rosebluff Lead (component (b) of SSW Compensation), \$2.89 per car mile, which resulted in an overall per car mile trackage

¹⁸ Such additional costs are difficult to calculate until BNSF commences operations, particularly given the operating flexibilities granted to BNSF in Decision No. 6.

¹⁹ BNSF should pay for any KCS external costs incurred by KCS due to BNSF's presence on the Rosebluff Lead. External costs are those that KCS would incur to its own operations as a result of any potential interference. For example, even if BNSF's train does not stop or switch in the Rosebluff Yard and BNSF operates wholly within UP's window, to the extent that BNSF delays KCS's use of its window and such delays create additional costs to KCS, BNSF should compensate KCS for those additional costs. Such additional costs that KCS could incur involve KCS paying overtime dollars, being forced to add crews, incurring additional car hire charges, incurring additional locomotive hours (BNSF proposed an hourly delay fee of \$842 with respect to one of its bridges), KCS experiencing delays in its ability to meet customer schedules, including possibly even paying delay penalties under its contracts, and possibly the need to hire additional manager(s).

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rights fee of \$17.17/per car mile. See Neels VS at 44. Dr. Neels's evidence is a fundamentally sound application of SSW Compensation.

Nonetheless, establishing compensation based on SSW Compensation will not make KCS whole and it is not a market-based methodology as required by condemnation principles. As the Board recognized in Decision No. 8, the trackage rights it granted to BNSF at Lake Charles are “[u]nlike a ‘typical’ grant of terminal trackage rights (e.g., the Beaumont and Shreveport segments that UP references), [due to] the Rosebluff Lead grant affect[ing] two different line owners, each subject to a different compensation scheme.” Decision No. 8 at 15. BNSF and UP both received various benefits by entering into a settlement agreement as part of the UP/SP merger.

By contrast, KCS received no benefits and continues to be penalized by that agreement, making a limited SSW Compensation inadequate compensation for what KCS has lost. As Professor Carey explains, despite the UP/SP merger occurring some 24 years ago, UP (by its own choice) has been under-compensated for 24 years, while KCS is yet to receive any payment for access to its property or compensation for either BNSF using the Lead to serve shippers at below-market rates or for the business losses KCS suffered due to BNSF’s presence on the Rosebluff Lead. No one denies that UP and BNSF have seen benefits from the merger. However, these benefits came at KCS’s expense, and calculating trackage rights compensation using SSW Compensation ignores the scope of KCS’s past losses and would only serve to exacerbate that harm unless a Market-Based Access Fee is established for the future.

III. APPLICATION OF SSW COMPENSATION WILL NOT MAKE KCS WHOLE AND IS NOT CONSTITUTIONALLY SOUND

In Decision No. 3, the Board-authorized BNSF’s terminal trackage rights over the Rosebluff Lead. However, the Board noted that “the question of compensation” required KCS to

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“have a role in establishing compensation for use of those facilities” as KCS is a third-party joint owner of the Rosebluff Lead. Decision No. 3, at 20.

For 24 years, BNSF has continuously grown its market share over the Rosebluff Lead. BNSF grew its market share by (1) paying UP “a below-SSW Compensation rate that UP voluntarily negotiated, offered to BNSF, and accepted (through merger consummation);”²⁰ Decision 8, at 15; and (2) paying KCS nothing for its access over the jointly owned-Rosebluff Lead. Collectively, this arrangement allowed BNSF to acquire significant traffic volumes and market share and generate significant contribution levels by operating at artificially low non-market rates. Carey VS at 25-26. As BNSF has stated many times, if BNSF had its way, it would continue to pay nothing more than what was agreed upon by UP and BNSF as part of the UP/SP merger (the Prescribed Fee), and UP and KCS would continue to subsidize its operations.

In Decision No. 8, the Board made it clear that KCS, as a joint owner of the Rosebluff Lead, must be compensated for BNSF’s access but left open the question of how that should occur. While KCS agrees with the Board that it must be compensated, it disagrees with the Board’s implication that SSW Compensation is the correct methodology to determine such compensation.

²⁰ This rate was not market-based nor was it set in accordance with any Board-recognized methodology. Rather, it was the rate negotiated as part of the global settlement between UP and BNSF and reflected the give and take of various rights and obligations.

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A. SSW Compensation Does Not Satisfy the Statutory Requirements²¹

In Decision No. 8, the Board states “[t]his case presents unique circumstances regarding the interplay between the Board’s merger conditions in UP/SP and § 11102(a).... KCS is entitled to compensation under § 11102(a), as half-owner of property subject to the Board’s grant of direct terminal trackage rights to BNSF.” Decision No. 8 at 15. Pursuant to 49 USC § 11102(a), the Board “may establish conditions and compensation for use of the facilities under the principle controlling compensation in condemnation proceedings. The compensation shall be paid or adequately secured before a rail carrier may begin to use the facilities of another rail carrier.”

As recognized by the Board’s predecessor, the ICC, and the Supreme Court, the Board’s focus in establishing compensation based on the principle controlling compensation in condemnation proceedings should be what the owner has lost, not what the taker has gained. See Mo.-K.T.R. Co. v. Kan. City Terminal Ry., 198 I.C.C. 4, 7-8 (1933). The same case states the measure of damages in a condemnation proceeding is the difference between the value of the property before and after the taking. Id.

The Board granted BNSF access over the Rosebluff Lead in the Lake Charles area in part because it believed KCS could not fully compete against UP and thus the Board fully expected BNSF to take traffic from KCS, not the other way around.²² BNSF has taken full advantage of the Board’s gift and below market access fee by taking market share from both KCS and UP in

²¹ This section discusses why SSW Compensation does not satisfy the statutory requirements of 49 USC § 11102. SSW Compensation is also contrary to the revenue adequacy constraint, which underlies the Board’s regulatory policies. See Section (III)(E) *infra*.

²² “[G]iving BNSF additional rights was the most effective way to assure continued competition for Lake Charles area shippers. [Citing UP/SP Decision No. 44 at 105-07, 133.] In spite of its service to the Lake Charles area, KCS lacks a sufficient route structure to be competitive with UP/SP in many corridors on a single-line basis.” UP/SP, Decision No. 63, at 4.

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the Lake Charles area ever since the UP-SP merger.²³ KCS has never been compensated for this taking.

SSW Compensation does not meet the statutory requirements to fully compensate KCS. This proceeding is unlike the run-of-the-mill SSW Compensation case for many reasons, the primary one being that SSW Compensation was designed for use in establishing compensation for overhead trackage rights only and has not been used to compensate an owner for access to local shippers, such as BNSF seeks here.²⁴ Upon BNSF commencing direct service, KCS will not only suffer a loss in the value of its physical infrastructure but will also suffer further loss of revenues and contribution that it currently generates via customers served over the Rosebluff Lead.²⁵ KCS is entitled to be compensated for both losses.

In continuing to treat this proceeding as simply implementing a condition imposed over two decades ago in the UP/SP merger, the Board continues to ignore that there was no legal basis for imposing the condition on KCS, a non-applicant carrier.²⁶ Likewise, the Board also ignores

²³ See KCS Reply (June 25, 2018) Carey VS at 57, See Carey VS 25-26.

²⁴ During the Conrail split-up between NS and CSX, the Board used SSW Compensation to calculate trackage rights compensation for overhead/bridge trackage rights, while simultaneously making it clear that the “prospective trackage rights [were] limited to overhead traffic between Albany and New York City, and local access to industries situated between those points [would] not be permitted.” See CSX Corp. and CSX Transp., Inc., Norfolk S. Corp. and Norfolk S. Ry. Co. – Control and Operating Leases/Agreements – Conrail Inc. and Consolidated Rail Corp., FD 33388 and FD 33388 (Sub-No. 69), slip op. at 6 (STB served Dec. 18, 1998).

²⁵ Prior to BNSF’s Board-mandated access, KCS received revenues from handling Montell (Lyondell) traffic that covered both direct costs, a return on capital for the Rosebluff Lead, and a contribution toward KCS’s network costs. BNSF’s access at below market rates further reduced KCS’s ability to contribute to its network costs. SSW Compensation only provides a return based upon the cost of capital and does not compensate a carrier for its loss of contribution to its off-line network costs.

²⁶ In granting BNSF trackage rights in Decision No. 3, the Board likewise disregarded precedent that trackage rights could not be imposed over a non-merging carrier, as KCS was in the UP/SP merger, except in the very limited bridge-the-gap situation. See In Rio Grande Indus., et al.—

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that access by BNSF via the current switching/haulage arrangement has accomplished the purpose of ensuring shippers have competitive options and without the need for imposing direct terminal trackage rights. The undue economic advantage of BNSF's reciprocal switching operations has resulted in BNSF gaining significant traffic volumes and market share.²⁷

This artificially low non-market access by BNSF will create a distortion in applying SSW Compensation. By introducing a third competitor in the Lake Charles terminal complex and at below-market rates, revenues attributable to the Rosebluff Lead are artificially low.²⁸ These artificially low revenues, if not accounted for through proper adjustments to reflect a Market-Based Access Fee, will hinder proper compensation due to KCS using SSW Compensation. The fact that revenues generated in the region have been suppressed for decades has in turn left the carriers with less money to reinvest in their networks. The harm has been particularly profound for KCS, which despite not being a party to the merger or the underlying settlement agreements,

Pur. & Track. – CMW Ry. Co., 5 I.C.C.2d 952, 1989 ICC LEXIS 284, *56 (1989) (the Interstate Commerce Commission (“ICC”) explained that it could not use its “plenary” authority under former section 11341 (now section 11324) “to compel a [non-applicant] carrier to grant trackage rights over its line to another carrier.”); see also Rio Grande Indus., Inc., et al. – Purchase and Related Trackage Rights – Soo Line R.R. Co. Line Between Kan. City, MO and Chicago, IL, Finance Docket No. 31505, 1989 ICC LEXIS 351, Decision No. 6, slip op. at 8 (ICC served Nov. 13, 1989). A complete discussion of the inappropriateness of granting trackage rights to BNSF is included in the KCS Reply and KCS Suppl.

²⁷ See Carey VS. BNSF's presence via forced access has resulted in BNSF gaining a considerable traffic volumes and market share of Lyondell traffic and other Lake Charles area customers, which is strong direct evidence of competitive impact as customers shift to new suppliers to gain economic benefits. Carey VS at 25-28.

²⁸ See Carey VS explaining that “[t]he past artificially low non-market rate that provided BNSF government mandated access to the Rosebluff Lead customers... has had a profound impact on the competitive market dynamic in Lake Charles. It has also had a profound impact on KCS through constraining rates, volume, and revenue, directly or indirectly by the competitive pressures imposed by the outdated and artificially low trackage rights fee in effect for more than two decades. BNSF's undue economic advantage for more than two decades has forever changed the competitive landscape in Lake Charles, LA.” Carey VS at 24.

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and which for over 24 years has not been compensated at all for BNSF's presence and below-market operations over the Rosebluff Lead, has seen the value of the asset it owns diminish through no fault of its own. Given the 24 year-long subsidy to BNSF and other losses suffered by KCS, the Board's application of SSW Compensation will not compensate KCS for what it has lost nor will the application of SSW Compensation, calculated on already artificially suppressed revenues, adequately compensate KCS in the future for the true value of the property being taken for BNSF's use.

SSW Compensation also does not account for lost contribution (profit) to the rest of KCS's network both over the past two decades and going forward. The International Transport Forum ("ITF"), a 59-country (including the U.S.) "think tank" consortium, issued a report entitled "Regulatory Capacity Building: Tools for Analysing Rail Connectivity."²⁹ In the report, ITF discussed appropriate compensation in trackage rights access cases in Mexico. ITF recognized that SSW Compensation is used in the U.S. under certain circumstances, noting that the interest rental component is often a source of considerable controversy and litigation. More importantly, however, ITF acknowledged that the U.S. methodology:

has not considered the costs or revenue loss imposed on other parts of the rail network. The existing rules only provide for the incumbent to receive a fee for the specific track at issue **and neglect to include any profit the railroad might have earned for the rest of its system on the traffic now captured by the entrant.**

[Emphasis added]

This is a fundamental flaw in SSW Compensation, especially when applied to local traffic and especially here where applying it is already based on already artificially suppressed earnings._

²⁹ ITF (2018), "Regulatory Capacity Building: Tools for Analysing Rail Connectivity," OECD Publishing, Paris.

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Indeed, this same issue — the potential for lost profits and the reduction in capital available for reinvestment in the network — is the topic of significant discussion in EP 711. The Association of American Railroads' comments in Ex Parte No. 711 (Sub-No. 1) — comments that BNSF joined — make clear that granting shippers access to another carrier at rates that do not compensate the carrier providing the access for lost opportunity profits will eventually result in less capacity, worse service, and less competition.³⁰ KCS signed those comments and those comments are fully applicable to the principles underlying KCS's argument here. Failure to compensate KCS for lost opportunity profits has and will continue to adversely affect KCS's revenue adequacy and overall ability to reinvest and maintain infrastructure over the entire network to the detriment of all rail stakeholders. SSW Compensation alone does not satisfy the statutory requirements for compensation because it does not compensate KCS for its lost opportunity profits, will be based upon already artificially constrained earnings, and does not place KCS and BNSF in the same economic position that they would be absent Board-mandated access, which the principles of condemnation require.

B. SSW Compensation Will Not Compensate KCS for the True Cost of BNSF's Operations.

SSW Compensation fails to account for costs that would not be incurred absent BNSF's operations. SSW Compensation does not account for any additional infrastructure determined to be necessary to accommodate BNSF and to prevent interference with KCS's operations. KCS

³⁰ See Opening Comments of The Association of American Railroads, Reciprocal Switching, EP 711 (Sub-No. 1) (Filed Oct. 26, 2016); and see also, Opening Comments And Evidence Of BNSF Railway Company, Reciprocal Switching, EP 711 (Sub-No. 1), at pages 11-13 (Filed October 26, 2016). These pleadings are hereby incorporated into the record pursuant to 49 C.F.R. §1114.4 and §1114.5 (the Board already has a true copy in its possession) and KCS requests the Board also to take official notice of this corroborative evidence pursuant to 49 C.F.R. §1114.6.

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should not be required to contribute to capital or maintenance costs of infrastructure related to BNSF direct access. Such costs are a direct result of UP's agreement to grant BNSF access. Any such infrastructure costs should be borne by BNSF and UP in accordance with whatever agreements they have governing the UP/SP merger.³¹ For future infrastructure investments, to the extent that those infrastructure improvements will benefit all three parties, all parties should contribute to those costs in accordance with the principles of the existing joint facility agreements, which apportion such costs on a usage basis.

SSW Compensation does not capture BNSF's proportionate share of other costs and capital investments deemed necessary for the Rosebluff Lead. Operations on the Rosebluff Lead are governed by a series of joint facility agreements. Those agreements govern a variety of obligations, liabilities, indemnities, cost allocations, capital improvement requirements, dispute resolutions, and management responsibilities. For example, BNSF should contribute its usage-based share of extraordinary costs, such as costs associated with significant flooding, fire, or other natural disasters that may occur on the Rosebluff Lead.³² Such provisions are common in many current trackage rights agreements. And, as noted previously, BNSF should also pay for all additional capital improvement costs that are required to accommodate BNSF's initial access and any additional future capital assessments needed to accommodate BNSF service without causing interference to KCS's and UP's operations.

SSW Compensation does not address other indirect costs and potential liabilities resulting from BNSF's presence on the Rosebluff Lead. BNSF should be required to agree to indemnify

³¹ For future infrastructure investments, to the extent that those infrastructure improvements will benefit all three parties, all parties should contribute to those costs in accordance with the principles of the existing joint facility agreements, which apportion such costs on a usage basis.

³² Hurricane Laura and Hurricane Delta caused significant damage in the Lake Charles area in 2020. KCS and UP accrued significant costs related to the storms, while BNSF did not.

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UP and KCS from liability that may result from BNSF's presence and to carry required insurance or make self-insurance commitments. The agreement should also include standard terms utilized in KCS, UP, and BNSF trackage rights agreements, modified to account for any specific parameters unique to the Rosebluff Lead. BNSF should not be given any special treatment or exempted from any of the normal obligations that would be imposed on a tenant in a voluntary trackage rights agreement. More importantly, neither KCS nor UP should have to pay any additional costs because of BNSF's unilateral decision to elect direct service to expand its profit margins.

C. Precedent Confirms the Board Must Ensure Compensation Accounts For Unique Circumstances, Such as Those Present in This Case.

SSW Compensation aims to place the landlord and the tenant in the same economic position and ensure that both the landlord and tenant carry the same cost burden. Since the tenant has paid below-market access costs for the last 24 years, future compensation calculated using the SSW Compensation methodology will be artificially constrained, yet alone insufficient to compensate KCS for 24 years of lost revenues resulting from BNSF serving shippers at below-SSW Compensation rates.³³ Historically, SSW Compensation has been utilized to

³³ See SSW I, 1 I.C.C.2d 776, 786 (1984). The Board and the ICC time and again have affirmed that the tenant needs to pay its fair, usage-based portion of the cost of capital in order to "put the tenant on an equal footing with the landlord." See WCTL, 169 F.3d at 781. Absent such a requirement, the landlord would end up subsidizing the tenant, it would not receive an adequate return, and there would be no economic incentive for it to maintain or replace the line as necessary to continue efficient service. See also Missouri Pac. R. Co. v. ICC, 23 F.3d 531, 534 (D.C. Cir. 1994) ("MO PAC")

Here, due to the government imposing the condition that gave BNSF access (first via reciprocal switch and now via direct access), the Lake Charles revenues generated over the Rosebluff Lead to date do not reflect a true market value. As such, using such below-market values to calculate compensation via SSW Compensation will not place the landlord and tenant in the same position because it does not account for decades of lost contributions and under-market earnings or KCS

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determine compensation for overhead or bridge trackage rights.³⁴ Here, the trackage rights granted to BNSF gave it access to serve local shippers on the Rosebluff Lead, which is outside the intended purpose of the SSW Compensation methodology. ICC/STB precedent demonstrates that SSW Compensation was not intended to apply to establishing terminal trackage rights compensation for proceedings in which the tenant will be obtaining access to local shippers via a Section 11102 proceeding and over the objections of the landlord.³⁵ Applying SSW Compensation to establish terminal trackage compensation for BNSF's access to specific local shipper traffic (Lyondell) would be unprecedented.

Precedent supports the Board declining to apply SSW Compensation in a case such as this where the access being granted is for local access, not overhead rights. Indeed, the ICC has previously recognized that SSW is not always the correct approach. For example, the ICC declined to apply SSW Compensation in Amtrak I and Amtrak II.³⁶ In Amtrak II, the ICC imposed terms and conditions for the trackage rights of the 48.8-mile portion at issue in Amtrak I

loss of contribution going forward. Likewise, it does not compensate KCS for decades of capital improvements made to grow the Lake Charles area business.

³⁴ See SSW I applying SSW to establish compensation for the tenant's bridge trackage rights but declining to grant and establish compensation for local service to Labadie, which was outside the scope of the tenant railroad's bridge trackage rights. Id. at *50-*52. The ICC recognized in that "the Commission and rail carriers in general have recognized a distinction between trackage rights for bridge purposes and trackage rights for local service...."Id.

³⁵ See CSX Corp. and CSX Transp., Inc., Norfolk S. Corp. and Norfolk S. Ry. Co. – Control and Operating Leases/Agreements – Conrail Inc. and Consol. Rail Corp., FD 33388 and FD 33388 (Sub-No. 69), slip op. at 6 (STB served Dec. 18, 1998).

³⁶ See Nat'l R.R. Passenger Corp.—Conveyance of Boston & Me. Corp. Interests in Conn. River Line in Vt. & N. H. (Amtrak I), 4 I.C.C.2d 761 (1988), aff'd sub nom. Nat'l R.R. Passenger Corp. v. Boston & Me. Corp., 503 U.S. 407 (1992); Nat'l R.R. Passenger Corp.—Conveyance of Boston & Me. Corp. Interests in Conn. River Line in Vt. & N. H. (Amtrak II), 6 I.C.C.2d 539 (1990). In Amtrak I the ICC ordered Boston and Maine Corporation ("B&M") to sell to Central Vermont Railway, Inc. ("CV"), a 48.8-mile portion of B&M's rail line from Windsor, Vt., to Brattleboro, Vt., and CV to grant back to B&M trackage rights over that portion of the rail line. Id. Amtrak I and Amtrak II are referred to herein as the "Amtrak Proceedings."

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(the Middle Segment), as well as two adjoining CV-owned segments (the Northern and Southern Segments) over which B&M previously had trackage rights. In doing so, the Board declined to apply SSW Compensation due to the additional considerations involved in those proceedings (the ICC was forcing the carrier to sell its line to another carrier and, to offset the operational disruption to the seller from the forced sale, granted trackage rights back to the selling carrier).³⁷

Id. Likewise, in UP/SP, the Board did not apply SSW Compensation to the terminal trackage rights granted to Tex Mex over the HB&T.³⁸ Similarly, the ICC in a 1995 trackage rights compensation case involving BNSF noted that SSW Compensation alone is not always adequate compensation for trackage rights.³⁹ Likewise, here, the Board should recognize that SSW Compensation should not be applied in the unique circumstances of this case. If SSW Compensation is applied here, BNSF is getting the right to use KCS's (and UP) trackage at a below-market cost and thus take business opportunities and revenues from KCS (and UP). This will impair KCS's ability to receive an adequate return and erode KCS's economic incentive to maintain or replace the line as necessary to continue efficient service, contrary to the Rail

³⁷ SSW Compensation was decided before Amtrak II. The Board could have used SSW Compensation to set trackage rights compensation in Amtrak II, but it did not. Instead, the Board calculated compensation that was designed to fully compensate B&M for the taking of its line.

³⁸ UP/SP, Decision No. 47.

³⁹ SSW Compensation does not account for the costs associated with additional facilities that are utilized in serving a particular shipper where such additional facilities are not part of the tracks themselves. The Board recognized that SSW Compensation should apply to the use of the tracks but additional compensation would be needed to contribute to the use of the additional facilities. Burlington N. Inc. and Burlington N. Ry. Co. – Control and Merger – Santa Fe Pacific Corp. and Atchison, Topeka, and Santa Fe Ry. Co., FD 32549, Decision No. 40, 1995 ICC Lexis 242 (ICC served August 23, 1995) (“Decision No. 40”). When discussing what type of compensation the Board would apply if asked by the parties to set compensation, the Board said the circumstances of the case warranted “some combination of a fixed charge and usage-based compensation” and an evaluation of the specific circumstances involved in the case would ultimately be used to determine the split. Id. at FN 19.

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Transportation Policy. See MO PAC. See also Carey VS at 28 (discussing economic incentives).

While flexible, SSW Compensation is not adequate for calculating compensation in the facts of this KCS. This especially the case here where KCS was not even a party to the UP/SP merger or any settlement agreements or economic terms between UP and BNSF⁴⁰ and was not free to walk away if it did not like the Lake Charles Condition. KCS is entitled to be compensated fully for what it has lost. SSW Compensation will not fully compensate KCS for what it has lost. This warrants the Board applying an alternative methodology.

Although KCS has set forth an SSW Compensation approach because of the Board's order and the Board's precedents, KCS does not believe SSW Compensation should be applied. Even KCS's own SSW Compensation witness, Dr. Neels, believes SSW Compensation is not market-based and does not adequately compensate KCS for BNSF's access. Dr. Neels actually shares some of the criticisms of SSW Compensation set forth by Professor Carey.

As explained in the Julie Carey VS, CE is not appropriate here because it will be based on "revenues from a current period which have been historically too low as BNSF has only paid an artificially low, non-market-based switching fee to UP in the past to access a robust set of high value customers." Carey VS at 32. As such, application of CE will not adequately compensate KCS as the landlord railroad. Id. Using historical revenue or expected future revenues based on historical below market and below SSW Compensation rates will not produce an accurate or reliable CE-based valuation. Precisely because this is not a typical trackage rights case as acknowledged by the Board, application of SSW Compensation (based on CE) will not

⁴⁰ While by granting BNSF access in Lake Charles UP benefitted from the approval of its merger and gained additional commercial access from BNSF in exchange (see UP/SP Decision No. 47 at 44, 49), KCS did not.

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make KCS whole. The Rosebluff Lead and related trackage co-owned by KCS contains limited physical trackage (approximately 9 miles)⁴¹ coupled with a high density of customers with substantial revenue-generating specialized plastics and chemical products. Application of SSW Compensation (based on CE) will capture some, but not all of the value of the Rosebluff Lead. Unfortunately, neither CE nor RCNLD, for which compensation is the same regardless of whether the track is located in a swamp with no customers or if the track is an economic powerhouse for the region the track serves, captures the full value of the Rosebluff Lead to UP and KCS.

Professor Carey also articulates several reasons why compensation based on RCNLD would be inadequate. *Id.* at 33-35. RCNLD solely looks at the cost to duplicate the railroad assets in their present position and assumes the parties would build the asset today to serve existing traffic. However, this will lead to an artificially low rate and revenues for KCS because RCNLD does not capture the full economic value of the asset, intrinsic and extrinsic, does not compensate KCS or UP for building business at Lake Charles over the Rosebluff Lead for the 24 years that have elapsed since the UP/SP merger or for that matter the seven decades that KCS has owned the Rosebluff Lead.

As Professor Carey discusses in the Carey VS, RCNLD is especially inappropriate here where older, depreciated railroad assets may not well represent the economic value of the asset. RCNLD does not differentiate the economic circumstances of the individual supplier, which may charge the same or similar competitive rate in the marketplace, but due to the depreciated asset, the supplier may earn more profit which results in a higher asset valuation if one were to sell the business. *Id.* at 34. RCNLD does not account for such market-based results. For instance,

⁴¹ FD 32760 (Sub-No. 46) (STB served June 29, 2016), slip op. at 1-2.

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consider an Uber driving service where the price paid for a trip is identical regardless of the vehicle age. RCNLD would result in a lower compensation fee for the older car versus the newer car because of the higher level of depreciation costs are subtracted out for the older car. Also, consider a fully depreciated railroad asset that under an SSW compensation rate (based on RCNLD) may provide very little (i.e. near zero) compensation for the capital component and only reimburse variable costs.

RCNLD is also inappropriate here because application of RCNLD treats the relevant track, signals, and facilities like they exist in a bubble, irrespective of whether they are used to serve one shipper or, as in this case, a dozen major industrial facilities. See Neels VS at Pages 8-9. When the Board is asked to set compensation for overhead trackage rights, it may make sense for the Board to set such compensation based on the value of the physical asset, but that is not the Board's task here. Here, BNSF is asking the Board to set compensation for BNSF to use the jointly owned Rosebluff Lead to take local traffic from KCS and UP. RCNLD, by design, is incapable of compensating KCS as a joint owner of the Rosebluff Lead for its extrinsic value (the contribution that KCS would otherwise have available to apply to its network). Moreover, RCNLD would not compensate KCS for lost opportunity profit related to BNSF's service over the Rosebluff Lead for 24 years,⁴² an undue economic advance that allowed BNSF to capture nearly [[REDACTED]] and approximately [[REDACTED]] of the linehaul business from shippers on the Rosebluff Lead in 2019.

A premise of RCNLD – that the railroad would build the same asset to serve existing traffic – exposes the weakness of that methodology. KCS would not spend significant sums of

⁴² As Dr. Neels discusses in his verified statement, currently KCS (in Zone 1) and UP (in Zone2) switch BNSF's traffic basically at cost and as a result BNSF is not contributing to maintenance and improvement of the infrastructure it utilizes to serve shippers. See Neels VS at 14.

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money to build an asset (Rosebluff Lead) only to be compensated at its cost of capital nor would KCS grant another carrier access to those assets at artificially low non-market rates. For the reasons explained above, and as elaborated on in the Carey VS and the Neels VS, application of the SSW Compensation methodology, regardless of the method used to calculate the interest rental component, will not place KCS in the same position it was, but for the taking.

D. Application of SSW Compensation Furthers BNSF's Already Existing Undue Competitive Advantage

SSW Compensation was designed for use in merger cases to remedy anticompetitive effects and to place tenants and landlords in a similar position via overhead trackage rights. As explained previously, BNSF is not seeking terminal trackage rights to preserve competition, as that has already been accomplished through BNSF access via reciprocal switching. Rather, BNSF is seeking terminal trackage rights here to obtain lower costs and to achieve a further undue competitive advantage over UP and KCS through government-mandated rates. Use of SSW Compensation here would only serve to increase and enhance BNSF's market share by expanding BNSF's government-mandated access at below-market cost.

After years of serving the area and gaining market share via reciprocal switching, BNSF began evaluating the Lake Charles region to determine whether the area warranted investment by BNSF to capture economic growth in the coming years. BNSF ultimately produced a report entitled [[REDACTED]] which explained that [[REDACTED]]

[[REDACTED]]

[[REDACTED]]

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[REDACTED]].⁴³ BNSF decided based on the current economic conditions, not the post-1996 merger environment, that it would [[REDACTED]], pursue direct access, and [[REDACTED]]
 [REDACTED]
 [REDACTED]].⁴⁴

This proceeding is not an attempt to remedy competitive concerns pre and post-merger or to ensure that Lyondell's pre-merger competitive posture was preserved. Rather, this proceeding is a non-merger competitive access case filed under Section 11102(a) to cherry-pick one particular shipper to "skim the cream" off UP's and KCS's decades-long investments in the Rosebluff Lead. SSW Compensation has never been applied in this manner, and it should not be here.⁴⁵

BNSF seeks to tilt the competitive playing field so heavily toward BNSF that competing for Lyondell's traffic will be difficult for KCS. BNSF's much larger network and the artificially low switch rates from which BNSF benefits on the Rosebluff Lead have already allowed BNSF to capture traffic once handled by KCS. Now, BNSF seeks to cherry-pick certain Rosebluff Lead traffic (Lyondell) with at least the following additional operational and cost advantages that KCS as a landlord does not enjoy:

⁴³ See BNSF-HC-001597- BNSF-HC-001613.

⁴⁴ See BNSF-HC-000007

⁴⁵ This is precisely the type of inappropriate use of Section 11102 that UP, BNSF, and the rest of the rail industry have warned about in the context of EP 711. Here, UP and KCS have invested in infrastructure for decades to maintain service to shippers and grow market opportunities for all Rosebluff Lead shippers. BNSF seeks to use its competitive access to "skim the cream" off UP's and KCS's efforts, leaving KCS and UP to provide costly switching service to other shippers. Lyondell obtains supra-competitive rates, but at the expense of other shippers and UP's and KCS's revenues.

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- BNSF picks and chooses which shipper it will serve via UP or KCS switching versus which shippers it will provide direct access to, while KCS, an owner of the track, is not given that option;
- BNSF avoids the burdens of switching traffic for UP and KCS, while UP and KCS are required to switch traffic for each other at higher costs than those incurred by BNSF;
- BNSF can pick up and deliver any number of cars on request, avoiding the 25-car unit restriction KCS and UP long ago agreed was necessary to avoid operational disruption when entering the zone that the other switches;
- BNSF gets to use 70 years of KCS and UP investment with no capital contribution;
- BNSF doesn't propose to add any infrastructure needed to handle its traffic, shifting the burden to KCS and UP to compensate with their own infrastructure dollars; and

Application of the SSW Compensation methodology would force KCS and UP to indefinitely provide BNSF these and other cost and operational advantages. This government-mandated undue economic advantage amounts to picking and choosing the winner and loser railroads by granting one railroad, (i.e., BNSF) better access and at better rates than that enjoyed by KCS.

E. Application of SSW Compensation Will Inhibit KCS's Ability to Attain Revenue Adequacy

Statutory and regulatory requirements have long recognized the importance of ensuring the revenue adequacy of each railroad.⁴⁶ The Staggers Act (and subsequent regulatory decisions) set forth a regulatory framework to enable railroad carriers to earn adequate revenues to provide a "safe and efficient rail transportation system."⁴⁷ As explained in the Carey VS, in rulemakings and other regulatory settings, Class 1 railroads (including UP, BNSF, and KCS) have continuously emphasized the importance of revenue adequacy considerations and prioritizing the competitive market framework and market-based outcomes, and the importance of avoiding the imposition of regulatory outcomes unless absolutely necessary. Carey VS at 6-10. BNSF and UP are routinely revenue adequate, while KCS is not. Id. at 6. In fact, BNSF has been found

⁴⁶ 49 U.S.C. § 10704(a)(2).

⁴⁷ The Railroad Transportation Policy ("RTP") at 49 U.S.C. § 10101(3).

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revenue adequate in 8 of the last 9 years. *Id.* at 7. In 2019, the Board concluded that BNSF obtained a 12.04% rate return on net investment, nearly 30% higher than the industry cost of capital 9.34%⁴⁸ and nearly double (*i.e.*, twice as large as) KCS's 6.20% ROI. *Id.* KCS's ROI was substantially below the industry cost of capital (6.20% vs 9.34%), a level approximately 33% below the ROI required for KCS to be deemed revenue adequate. As Professor Carey explains, setting compensation too low for BNSF's usage of the Rosebluff Lead has and will further impair KCS's ability to obtain revenue adequacy.

As a result of the UP/SP merger, UP greatly expanded its network, and BNSF derived substantial benefits through access to Lake Charles and other market areas. *Id.* at 8-9. In addition to network expansion, UP also gained access from BNSF.⁴⁹ On the other hand, KCS received nothing for government-mandated access being granted over its Rosebluff Lead property against its wishes, resulting in the unavoidable diminution in the value of KCS's 50% owned trackage in Lake Charles. Carey VS at 29. BNSF's payment of an artificially low and non-market rate to UP and payment of nothing to KCS has imposed a constraint (directly or indirectly) on KCS's ability to earn adequate revenues for 24 years. *Id.* at 10.

The additional BNSF competition for Rosebluff Lead customers that existed in the past through switching and potentially now through direct access has and will continue to impede KCS's ability to derive the full value of its 50% ownership share of the Rosebluff Lead trackage. The net effect of the direct access that BNSF now seeks with an artificially low rate (*i.e.*, below real world market-based rates) will continue the erosion of the value of KCS's 50% ownership

⁴⁸ Railroad Revenue Adequacy – 2019 Determination, Docket No. EP 52 (Sub-No. 24), served Oct. 1, 2020. BNSF's ROI is nearly 30% greater than the industry cost of capital: 1.29 = 12.04/9.34.

⁴⁹ UP/SP Decision No. 47 at 44, 49.

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share of the Rosebluff Lead trackage. SSW Compensation will not compensate KCS fully for what it has already lost nor will it compensate KCS going forward at a market-based rate (or even at a regulated rate that would allow KCS to achieve revenue adequacy, i.e. cost multiplied by RSAM). As such, application of the methodology will continue to deny KCS its ability to earn adequate revenues to support its network system and forestall its progress towards revenue adequacy.

Like Class 1's generally, BNSF has argued in numerous regulatory proceedings that rail pricing should be based on competitive market forces and has even opposed the application of a rate based constraint tied to revenue adequacy. Here, BNSF argues the opposite, hoping that the Board will impose a lower rate through regulation than BNSF would pay through market-based rate negotiations with KCS or even at a regulated rate tied to the ability of KCS to achieve revenue adequacy. KCS cannot achieve revenue adequacy, which is the goal of the statute when its competitor is being given access to KCS's infrastructure and at access rates lower than what a market-based rate would produce. As such, application of an SSW Compensation rate prevents KCS from obtaining revenue adequacy.

BNSF commonly establishes access rates (usually in the form of reciprocal switching rates) in economic circumstances similar to those at Lake Charles based upon market conditions. Such market-based rates should be applied in this case. As explained in Section IV(A) in Professor Carey's statement, the most appropriate form of compensation from BNSF to KCS would be a Market-Based Access Fee because it would (1) put KCS in an economic position similar to what it would have but for the government-mandated BNSF access; and (2) ensure that the Board is not establishing compensation that would further hinder KCS's ability to reach revenue adequacy.

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F. Given the Unique Circumstances In This Case, Application of SSW Compensation Does Not Meet the Constitutional Requirements for Setting Compensation

To be consistent with the Fifth Amendment, Section 11102(a) and ICCTA's mandate to adopt policies allowing KCS to earn adequate revenues, i.e., achieve revenue adequacy, KCS must be compensated in a manner that puts it in as good condition as it would have been absent the grant of competitive access by BNSF. See Seaboard Air Line Ry. v. United States, 261 U.S. 299, 304 (1923) (citation omitted); see also Olson v. United States, 292 U.S. 246, 254-55 (1934); United States v. Miller, 317 U.S. 369, 373 (1943); United States v. 564.54 Acres of Land, 441 U.S. 506, 510 (1979); and United States v. Virginia Elec. & Power Co., 365 U.S. 624, 633 (1961). KCS is entitled to receive "what a willing buyer would pay in cash to a willing seller" at the time of the taking, which, in this case, is the market rate that BNSF would have otherwise paid KCS for access. U.S. v. 564.54 Acres of Land, 441 U.S. 506, 510-511 (1979); see also Kirby Forest Indus. v. United States, 467 U.S. 1, 104 S. Ct. 2187, 10 (1984).

As explained in the Marzulla VS, the controlling legal principle, universally applied in all condemnation cases, is that the owner is entitled to "just compensation"—a principle set forth directly in the Constitution itself: "[N]or shall private property be taken for public use, without just compensation." See Marzulla VS at 2. Just compensation requires paying KCS the full monetary value of the property being taken. Id. Just compensation is typically the market value of the property at the time of the taking. Id. KCS has never received just compensation and SSW Compensation will not remedy that fact. To be clear, essentially, two takings have occurred here: one in 1996 when BNSF started operating over the Rosebluff Lead via reciprocal switch at non-market-based switch rates, and the second when and if it commences direct service

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over the Rosebluff Lead.⁵⁰ KCS has not been compensated for BNSF's operations over the past 24 years. Now, BNSF asks the Board to further injure KCS by applying SSW Compensation, which as Nancie Marzulla explains, "is not a constitutional just compensation standard... and as such is not consistent with the compensation principle controlling in condemnation proceedings, which the Board is required to use." *Id.* at 7. The SSW Compensation standard does not include the market value of the property interest condemned nor the monetary equivalent of the property taken, and as such falls woefully short of the just compensation standard required by the Fifth Amendment and Supreme Court precedent construing the Just Compensation Clause. *Id.* There is simply no way that application of SSW Compensation here could make KCS whole.

IV. IN LIEU OF SSW AND GIVEN THE UNIQUE CIRCUMSTANCES OF THIS PROCEEDING, THE BOARD SHOULD APPLY A MARKET BASED ACCESS FEE

Absent Board intervention, one would expect that UP and KCS would both request market-based compensation from BNSF in exchange for allowing BNSF to serve Lyondell or any Rosebluff Lead shipper directly. The compensation would reflect the value to the owners of the asset. That value includes the income they could earn by hauling Lyondell's traffic themselves absent granting BNSF access. Market-based compensation would require BNSF to cover the incremental costs for its use of the Rosebluff Lead, including a return on the invested capital, which is similar to SSW Compensation. However, the requested compensation would in addition require BNSF to pay UP and KCS a "market-based fee" to account for the addition of BNSF service and to reimburse UP and KCS for the stream of potential earnings that could be

⁵⁰ The first taking has resulted in a significant reduction of KCS's market share and has suppressed earnings through artificially created competition at below market rates. As a result, this necessarily means that any compensation valuation of the asset based upon a CE approach will likewise produce an artificially low SSW Compensation rate.

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lost due to BNSF's access. Failure to provide for that lost contribution could adversely affect future investment and competition across UP and KCS's networks.⁵¹

As explained in the Carey VS, the appropriate measure of KCS's loss as a result of the taking of its property is market-based compensation. Otherwise, an access fee not based upon a market rate allows BNSF to take taking economic rents that KCS and BNSF otherwise would share through commercial negotiations akin to a negotiated contract for a joint-line movement. A competitive negotiation process with a willing buyer and willing seller results in the appropriate economic outcome and arms-length transactions that are consistent with fair market value. The Board's compensation approach should replicate the fair market value negotiated rate as best as it can. After considering several alternative methodologies to arrive at a Market-Based Access Fee, Professor Carey determined one methodology that could adequately compensate KCS, be consistent with the Board's statutory mandates, and be objectively applied consistent with current railroad practices. This methodology is based upon an examination of, and application of, rates derived from similarly situated markets where railroads have given each other access to each other's shippers via an arms-length negotiation.⁵² See Carey VS at 19-24.

⁵¹ As BNSF advocated in its EP 711 (Sub-No. 1) testimony on October 26, 2016, the Board must allow "market forces" to govern commercial relationships between carriers, and failure to do so could adversely impact functioning markets. See BNSF's October 26, 2016 Comments at 2; *Id.* at 13. BNSF goes on to say, "[a]s set forth in the RTP, the Board is required to facilitate rail investment by helping carriers earn revenues adequate to promote the development of a safe and efficient rail network that will meet the needs of the public."

⁵² The Board has recognized that market-based rates can serve as the basis for resolving competitive concerns resulting from mergers and provides shippers with adequate access to another carrier when that access is threatened through a merger. Canadian Nat'l Ry. Co., Grand Trunk Corp., And Grand Trunk W. R.R. Inc. – Control – Illinois Central Corp., Illinois Central R.R. Co., Chicago, Central And Pacific R.R Co., And Cedar River R.R. Co., 4 S.T.B. 122, 1999 STB LEXIS 305, *30-*33 (1999) (approving privately negotiated settlement agreement granting KCS haulage rights to access certain shippers and at market based rates much higher than the rates suggested here or that would have been imposed using an SSW Compensation approach.).

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In order to determine appropriate compensation for the access BNSF seeks, Professor Carey conducted an analysis of market-based reciprocal switching rates to identify a comparable set of current real-world market-based reciprocal switching rates for geographic areas that had similar economic conditions to the Lake Charles area, including larger railroad carriers, similar types of products, and access to a robust set of customers, among other factors. Professor Carey determined that approximately a dozen geographical areas have customers with a reasonable overlap in types of products as those on the Rosebluff Lead.⁵³ In these similar markets, Professor Carey found that real-world market-based reciprocal switching rates observe a weighted average rate equal to \$490/car, and in the Louisiana/Alabama market area nearest to Lake Charles, weighted average reciprocal switching rates range from \$349 to \$555 per car. See Carey VS at 39-40.

After determining the weighted average rate above, Professor Carey removed the switching costs to represent the direct access rate. The adjustment to the average market-based access fee is required to remove the portion of that fee that represents the costs of switching, which neither UP nor KCS will occur for BNSF direct access. With this adjustment, Professor Carey derived a Market-Based Access Fee of \$[[REDACTED]]⁵⁴ to be used as a competitive rate for BNSF to pay KCS to directly access Lyondell via the Rosebluff Lead. Id. at 42. This Market-Based Access Fee should be in addition to BNSF reimbursing KCS and UP for the additional costs incurred for BNSF's direct operations.

⁵³ Professor Carey's analysis excluded reciprocal switch rates for products that don't reasonably represent the mix of products shipped by Lyondell or other Lake Charles area customers.

⁵⁴ Calculated based on market-based reciprocal switch rates, which have been adjusted to remove the URCS variable switching and other cost.

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Professor Carey compared her Market-Based Access Fee to other compensation proposals to demonstrate the reasonableness of her approach. Her Market-Based Access Fee is conservative as compared to an alternative fee calculation that directly aligns with KCS's shortfall in achieving systemwide revenue adequacy, as measured by the revenue shortfall allocation method ("RSAM"). Carey VS at 43. KCS's recent historical RSAM of 384%⁵⁵ for the 2016-2019 period is the average markup that KCS needs to charge all its "potentially captive" traffic to earn adequate revenues. *Id.* ⁵⁶ If the Board were to apply an RSAM-based fee in lieu of a market-based fee, it would multiply KCS's RSAM (384%) times the URCS costs associated with BNSF operating over the Rosebluff Lead to serve Lyondell traffic in Zone 2. The result yields a rate of [[REDACTED]] Carey VS at 43, which is higher than a market-based fee, even though such an RSAM rate is statutorily defensible and is consistent with the statutory requirement to allow KCS to charge rates that allow it to achieve revenue adequacy.

Professor Carey also analyzed her Market-Based Access Fee rate against BNSF and UP customer-specific profit contributions⁵⁷ to verify the reasonableness of the Market-Based Access Fee. Based on data provided by BNSF and UP,⁵⁸ the profit contribution margin percentages —

⁵⁵ Surface Transportation Board's Simplified Standards for Rail Rate Cases—2019 RSAM And R/VC>180 Calculations, STB, EP 689 (Sub-No. 12), slip op at 3 (STB served December 30, 2020)

⁵⁶ 49 U.S.C. § 10704(a)(2). "Potentially captive traffic is defined as all traffic priced at or above the 180% R/VC level, which is the statutory floor for regulatory rail rate intervention." Simplified Standards for Rail Rate Cases – 2019 RSAM and R/VC>180 Calculations, Docket No. EP 689 (Sub-No. 12), (STB served Dec. 31, 2020) at 1.

⁵⁷ The railroads generally refer to contribution is revenue less variable costs for each movement. Thus, the contribution can be described in numerous ways, such as contribution, margin, profit or rents from the specific movement identified and which represents the addition monies that can contribute to (or be allocated to) the rest of the railroad network. See Carey VS at FN 129.

⁵⁸ Professor Carey used final and near final rate bids to evaluate profit contribution margins percentages (i.e. percentage profit margin) that each railroad estimated for the specific customers and movements that it was negotiating rates with.

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weighted average revenue less weighted average cost — for BNSF ranged from [[REDACTED]] and for UP final bids ranged from [[REDACTED]]. Id. at 44. Thus, while there is a range of profit contributions that both BNSF and UP found acceptable for their risk/reward equation in the market, the relative percentage contribution margin range was comprised of a similar range. Further, Ms. Carey's analysis of railroad contribution margins confirms that the existence of BNSF competition at artificially low rates has led to lower profit contribution margins (i.e. erosion of profits) for Lake Charles traffic, clearly reflecting the competitive pressure that BNSF has exerted in Lake Charles. The competitive bidding for Lyondell Lake Charles observed profit contribution margins at the [[REDACTED]] range for customers in Lake Charles and other comparable areas. See Carey VS at 46.

In addition to analyzing contribution margin percentages used by BNSF and UP in the railroads' rate setting, Professor Carey also analyzed the contribution margins on a \$/car basis. This method allows for comparison with the Market-Based Access Fee as a check on reasonableness to understand the percentage of profit split between the Market-Based Access Fee as compared to the total profit contribution for the railroad customer movements.

For Lyondell, BNSF's contribution margin on a \$/car basis for the rate bids included in the bid analyses approximated [REDACTED] per car for all movements that were included in BNSF's rate-setting analysis that was agreed to by both parties in their commercial negotiations. Id. at 48 ⁵⁹ As such, the Market-Based Access Fee approximating \$[[REDACTED]] represents a modest proportion of the overall revenue contribution of the moves for Lyondell,

[REDACTED], which should alleviate any concern that establishment of a market-

⁵⁹ [[REDACTED]]

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based fee would frustrate the purpose of the Lake Charles Condition. The Market-Based Access Fee is an appropriate and conservative approach that provides KCS a more reasonable share of the contribution margin to be able to contribute to its network. See Carey VS at 48.

Based on her economic analysis, Professor Carey recommends a Market-Based Access fee be used as the compensation that BNSF should pay KCS for use of the Rosebluff Lead and direct access to Lyondell. Only by using such a Market-Based Access Fee will KCS be most closely placed in the shoes it would otherwise have been in if KCS and BNSF negotiated for a market-based rate for BNSF to access Lake Charles area customers. The Market-Based Access Fee compensation approach gives due consideration to the priority of efficient competitive market outcomes and revenue adequacy-based requirements and is consistent with STB policy imperatives. Most important, only with such an appropriate Market-Based Access Fee will further erosion of the value to KCS's trackage cease. See Carey VS at 49.

CONCLUSION

Despite the Board's belief that SSW Compensation is flexible enough to be almost universally applied, it is not. The Board has not always applied SSW Compensation and in the unique circumstances of this case, it should not do so here. In these circumstances, SSW Compensation does not satisfy the statutory or constitutional requirements for establishing compensation. As articulated in KCS's previous submissions as supplemented by KCS's testimony here, even a straight-up application of SSW Compensation (as set forth in Dr. Neels testimony) fails to fully compensate KCS. It does not account for what KCS, as a joint owner of the Rosebluff Lead, has lost due to BNSF being granted access nor will it fully compensate KCS for BNSF access going forward.

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While Dr. Neels's evidence is a fundamentally sound application of SSW Compensation, using SSW Compensation (irrespective of the methodology used to calculate the interest rental component) will not make KCS whole or satisfy the statute or the Constitution, as demonstrated by the testimony of Professor Carey and Nancie Marzulla. Application of SSW Compensation would (1) continue to cause irreparable economic harm to KCS and inhibit its progress towards revenue adequacy; (2) perpetuate an artificially low and below-market rate; (3) be inconsistent with general economic and regulatory principles in establishing rates; (4) be inferior to a Market-Based Access Fee; and (5) fail to compensate KCS in a manner that puts it in the same economic position it would have been absent the taking. The most constitutionally defensible way to compensate KCS for the taking of its property is to set the compensation payable to KCS based on a Market-Based Access Fee.⁶⁰

Respectfully submitted,

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January 26, 2021

Attorneys for The Kansas City Southern
Railway Company

⁶⁰ Use of an RSAM based rate is also consistent with both the statute and the Constitution.

PUBLIC VERSION**CERTIFICATE OF SERVICE**

I hereby certify that a true copy of KCS's Opening Statement and Evidence on Compensation Concerning BNSF's Use of the Rosebluff Lead was served by first-class mail, postage prepaid, or by a more expeditious manner, this 26th day of January 2021, on counsel for BNSF Railway Company, Union Pacific Railroad Company, and all other parties of record.

/s/ William A. Mullins

William A. Mullins
Attorney for The Kansas City Southern
Railway Company

PUBLIC VERSION

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

FD 32760 (SUB-NO. 46)

**BNSF RAILWAY COMPANY
-- TERMINAL TRACKAGE RIGHTS APPLICATION --
THE KANSAS CITY SOUTHERN RAILWAY COMPANY AND
UNION PACIFIC RAILROAD COMPANY**

**KCS'S OPENING STATEMENT AND EVIDENCE ON COMPENSATION
CONCERNING BNSF'S USE OF THE ROSEBLUFF LEAD**

EXHIBIT A

VERIFIED STATEMENT OF DR. KEVIN NEELS

PUBLIC VERSION
BEFORE THE
SURFACE TRANSPORTATION BOARD

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I. Experience and Qualifications

I am a Principal at the Brattle Group and an expert in regulatory economics, and in particular, Surface Transportation Board (“STB”) regulation of rail markets. At the Brattle Group, I directed the firm’s transportation consulting practice. I have more than 35 years of experience providing economic analysis, research, and consulting to a wide range of clients. These clients have included federal, state, and local transportation agencies, as well as firms in the postal, trucking, railroad, airline, and auto and aircraft manufacturing industries. My work has frequently addressed issues relating to competition, regulatory policy, and the proper relationship between the public and private sectors. I have previously submitted testimony before a number of different regulatory bodies, including the STB. I have also testified in international arbitrations, and state and federal courts.

Prior to joining The Brattle Group, I served on the staff of a number of other institutions, including the Rand Corporation and the Urban Institute. I also served as a Director of the consulting firm of Putnam, Hayes & Bartlett and Vice President of Charles River Associates, where I directed that firm’s transportation practice. I am a member of the American Economic Association and former Chairman of the Committee on Freight Transportation Economics and Regulation of the Transportation Research Board, an arm of the National Academy of Sciences.

I have published numerous research reports, monographs, and articles for peer-reviewed journals. I earned my Ph.D. from Cornell University.

In 2015, in collaboration with Dr. Robert Reynolds, I co-authored a verified statement in this proceeding analyzing the competitive effects of the presence of BNSF Railway Company (“BNSF”) on the jointly-owned Rosebluff Lead.

A copy of my resume is included as Appendix A.

II. What I’ve Been Asked to Testify About

The Rosebluff Lead is a spur located in the Lake Charles, Louisiana area that is jointly owned by The Kansas City Southern Railway (“KCS”) and the Union Pacific Railroad Company (“UP”). I have been asked by counsel for KCS to use the SSW Compensation methodology to calculate a trackage fee appropriate for direct access usage of the Rosebluff Lead by BNSF. Specifically, I have been instructed to apply that methodology as it pertains to the assets and infrastructure needed for use of the Rosebluff Lead to directly serve the Lyondell facility.

I reserve the right to amend the calculations and opinions expressed below if additional information becomes available.

III. Overview of the SSW Compensation Methodology

The SSW Compensation methodology takes its name from a series of trackage fee decisions involving the St. Louis Southwestern Railway Company (“SSW”). The decision determined the amount of a fee to be paid for the exercise of overhead trackage rights granted by a regulatory body (the Interstate Commerce Commission, or “ICC,” the predecessor of the STB)

over track owned by another railroad. The SSW Compensation methodology is essentially cost-based. It calls for the calculation of a trackage fee as the sum of three cost-based components.¹

The first of the three components (referred to as “Component (a)”) consists of the variable costs imposed on the track owner (AKA, the “landlord”) as a result of the operations associated with the exercise of trackage right by their holder (the “tenant”). Although the original SSW Compensation decision does not use this term, this first component appears to represent what economists call “incremental costs” – the costs imposed on the landlord as a result of operations by the tenant, and that would go away if the tenant ceased operations. Thus, for example, if capacity on the track in question were limited, and the operations of the tenant created congestion and imposed significant delays on the operations of the landlord, the cost of those delays would properly be included as part of the first component. Another cost typically accounted for in the first component is dispatching costs related to the tenant’s operations.

The second component (referred to as “Component (b)”) consists of a proportional share of the operating and maintenance costs associated with the track used by the tenant. For these costs to be non-duplicative of the costs included in the first component, they must represent a proportional share of the *non-incremental* costs of the track in question. As such, the second component typically includes property taxes and maintenance cost related to the infrastructure that will be used by the tenant.

¹ St. Louis Sw. Ry.—Trackage Rights Over Mo. Pac. R.R.—
Kan. City to St. Louis (SSW I), 1 I.C.C.2d 776 (1984); St. Louis Sw. Ry.—
Trackage Rights Over Mo. R.R.—Kan. City to St. Louis (SSW II), 4 I.C.C.2d 668 (ICC served 1987).

The third component (referred to as “Component (c)”) consists of a proportional share of the rental costs of the capital assets used by the tenant. This third component recognizes that railroads are a highly capital-intensive industry and that firms operating in that industry can remain in business only if all traffic contributes to coverage of the capital investments required to keep trains running. The third component provides for the tenant to pay an appropriate amount toward the recovery of those investments.

How one establishes the value of those capital assets is, of course, an important question. It is to that question that I now turn.

IV. General Approaches to Valuation

There are three widely recognized approaches to valuing an economic asset. The first approach involves calculation of its replacement cost. The second approach focuses on the current market value of the asset – what one could sell either the asset in question or a comparable asset for. The third approach considers the net present value of the earnings stream generated by the asset.

There are economic reasons why one would expect these three approaches to yield similar results. In general, there is no reason a potential purchaser of an existing asset would pay more for it than what it would cost to have a new version made (i.e. replacement cost approach). In more colloquial terms, no one would pay more for a used car than the price of that same car new (i.e. current market sales value of asset). There is no reason why the owner would sell an asset for less than the value of the income stream it produces. And, if the value of that income stream exceeds the cost of a newly produced version of that same asset, investors will have an

incentive to purchase newly produced assets until the growing supply of such assets drives down the value of their earnings and eventually eliminates the incentive to expand supply.

Of course, actual markets often diverge from these ideal conditions. It could be the case that different versions of assets within the same general asset category differ in ways that have a material effect on their values. Consider the case of two houses whose construction requires the same quantities of labor, materials, and other inputs, but that are based on different designs: one standard and undistinguished, and the other with many unique and pleasing design elements. They could command quite different prices in the marketplace, despite their identical construction costs.² The settings in which assets are used can also affect their earnings. A production line located in an area with skilled and productive workers, extensive support services, and superior transportation connections can be expected to generate more profits for its owners than an otherwise identical production line located in an area lacking these synergistic benefits.

These examples illustrate the fact that these valuation formulas cannot simply be applied mechanically and cannot always be relied upon to produce appropriate results. The specific characteristics, context, and market setting of an asset must be carefully considered to arrive at an accurate measure of its true economic value.

² One could argue that the superior design features result from the second house having been designed by a more skilled architect, and that if the cost of that more skilled architect were properly accounted for, the two houses would no longer be considered to have identical replacement costs. While there is conceptual merit to this observation, it ignores the practical reality that intangible inputs to the production process are difficult to account for, and that most actual calculations of replacement cost are generally based on a mechanical list-of-required inputs approach that does not include such intangibles.

V. Approaches to Calculating Capital Asset Values under SSW Compensation

The third component of the SSW Compensation methodology focuses on the question of how much the trackage rights holder should pay for the use of the capital assets that the holder will rely upon. In past proceedings, a number of possible ways of answering this question have been considered.

A. Approaches That Have Been Considered

One measure of asset value sometimes considered in this setting is stand-alone cost, or “SAC.” This measure, often used in STB proceedings involving petitions for rate relief, involves a calculation of what it would cost to reproduce an asset or set of assets using the best currently available technologies and materials.³ Such calculations are often tedious, excruciatingly detailed, and time-consuming. Some elements of the calculation can pose particularly difficult challenges. Consider land costs, for example. A SAC calculation necessarily presumes that it would be possible, for some well-defined cost, to acquire a continuous sequence of land parcels suitable for use as a right of way, regardless of the practical and economic challenges of doing so without the power of eminent domain, or the political challenges of exercising that power, if available. Such challenges would be especially formidable if, as is the case with the Rosebluff Lead, the required right of way must penetrate a heavily built-up area.

³ In rate reasonableness cases involving SAC the hypothetical standalone railroad almost always interchanges traffic with other railroads. Hence, the SAC exercise in such cases almost always involves both cost issues and revenue issues. Indeed, as I note below, the Average Total Cost methodology for revenue allocation was developed originally for use in these cases. It is possible that a SAC calculation carried out in an SSW Compensation exercise might involve so-called crossover traffic, although I don’t believe such an approach is at all common. It is in that sense that I characterize SAC in this context as primarily a cost-based approach.

Even if these difficulties could be overcome, and a reliable value produced, it would still suffer from some conceptual shortcomings. Just as the value of a brand-new car cannot be taken as the value of a heavily used version of that same car, the value of a brand-new set of assets embodying the newest materials and technologies cannot be taken as the value of a similar asset that was built years earlier, possibly with inferior materials, and worn down by years of hard use.

For this reason, SSW Compensation calculations often eschew the use of SAC in favor of replacement cost new, less depreciation, or “RCNLD.” RCNLD, like SAC, is based on an effort to establish the replacement cost of the assets at issue. Unlike SAC, however, it marks these costs down by an amount intended to account for reductions in the value of existing assets due to age and wear. In this respect, RCNLD is like the accounting concept of book value, but without the problem of reliance on stale and out of date purchase prices.

Both the SAC method and the RCNLD method are based largely on the replacement cost approach to valuation. As I have noted, there are many situations in which such an approach can produce misleading or inaccurate results. It is most prone to breakdown in situations in which assets are highly individualized, and/or the markets in which they are traded are relatively illiquid.

In principle, one could establish the value of the capital assets to be used by the tenant through a comparables analysis. For this approach to be viable one would need to identify an alternative set of assets that closely resembles the assets to be used by the tenant, and that was recently sold in an arm’s length transaction. In practice, these conditions are not easily met. As a result this approach, while conceptually appealing, is not often used.

The final widely used approach to calculating capital values under SSW Compensation is the capitalized earnings method. This method, as its name implies, falls within the net present value of earnings approach to valuation. It starts by measuring the income stream produced by the asset for its owner and then uses one of a number of financial methods to convert that stream into an estimate of value. The capitalized earnings approach offers a number of advantages over other approaches. The data on revenues and costs needed for a calculation of earnings tend to be both current and readily available. They also tend to be highly sensitive both to the local context and the idiosyncrasies of the asset in question. Moreover, because an older asset tends to be less productive and/or more costly to operate and maintain than a newer asset the effects of aging and depreciation can be accurately accounted for.

B. Applicability of These Approaches to the Rosebluff Lead

The value of the Rosebluff Lead lies in the access it provides to a large set of rail dependent shippers. The Rosebluff Lead is located in and provides access to a large industrial area containing oil refineries, chemical producers, and other industrial plants. The Rosebluff Lead also provides rail access to the Port of Lake Charles. The presence of these shippers provides the motivation for BNSF's request for direct access to the Rosebluff Lead. In one of its early documents discussing the possibility of gaining direct access to the area, BNSF emphasized the fact that "Lake Charles [[REDACTED]]"⁴

The replacement cost of the track, signals, and facilities that make up the Rosebluff Lead would not capture this value. Replicating those facilities in a location without shippers would

⁴ BNSF-LC2020-HC-0009041.

result in a worthless facility. A railroad seeking to construct an asset with value comparable to the Rosebluff Lead would be hard-pressed to find a location with comparable rail traffic potential. And, if such a location could be found, a railroad would encounter difficulty in acquiring the land and right of way needed to replicate the capabilities of the Rosebluff Lead. One cannot meaningfully talk about the “replacement cost” of the shippers located adjacent to the Rosebluff Lead, which are the true source of the Rosebluff Lead’s value.

C. The Approach Used Here

Under these circumstances, the only meaningful approach to valuation for use in an SSW Compensation calculation is a capitalized earnings approach. This approach properly focuses on the traffic generated by shippers located along the Rosebluff Lead, and the earnings they generate for the owners of the Lead. And because this approach focuses on earnings – revenues, minus the costs incurred to generate them – it also gives some weight to the cost of the assets and facilities that make up the Rosebluff Lead.

VI. Roles of the Three Railroads That Operate Over the Rosebluff Lead

Because the situation that currently exists on the Rosebluff Lead differs from that encountered in a traditional trackage rights transaction, some discussion of the roles and circumstances of the three railroads currently operating over the Rosebluff Lead is warranted.

In what I would consider to be a “classic” trackage rights case, the owner of the track over which trackage rights are sought is, at the time of the case, the sole operator on that track. As the sole operator, the owner appropriates the full economic value generated by the track in

question. Thus, the value of the facility can be established by inspection of the owner's financial results.

The situation on the Rosebluff Lead is substantially different. First, there is not one owner, but two. This fact adds some complexity to the problem. For example, the financial results of both owners must be considered. Once this is done, however, the value of the facility can still be established.

The most significant difference between the situation on the Rosebluff Lead and the classic trackage rights case is the fact that BNSF has been serving customers on the Rosebluff Lead at below-SSW Compensation (and below market) rates via reciprocal switch for 24 years. If BNSF's presence on the Rosebluff Lead were the result of arms-length negotiations between BNSF and the Rosebluff Lead's owners, this presence would not pose insuperable problems. In this hypothetical situation, whatever access fee the parties would have agreed to could have been expected to leave all parties better off than before. The owners of the Rosebluff Lead – both UP and KCS – would have been compensated for any loss of traffic or contribution they would suffer as a result of BNSF's presence; otherwise, they would not have agreed to grant BNSF admission. BNSF, in turn, would have retained whatever unique value it would have been able to create as a result of having access.

It is worth noting that these arguments would apply, regardless of the form of access under negotiation. To the extent that direct access to the Rosebluff Lead permitted BNSF to compete more effectively with the owners, they would have demanded higher compensation from BNSF for such access. However, even in the case of indirect access via switching or haulage, the owners would have demanded compensation for any losses they would have

experienced. Had BNSF gained access to the Rosebluff Lead through such a voluntary arrangement one could still have measured the value of the Rosebluff Lead by looking at the earnings it generated for its owners, including any access fees paid by BNSF.

Of course, that is not how BNSF gained access to the Rosebluff Lead. Instead, BNSF was granted access to the Rosebluff Lead as part of the set of agreements and rulings leading to the approval of the merger between the Union Pacific and Southern Pacific Railroads. The only compensation BNSF agreed to provide in exchange was a nominal trackage fee levied at a uniform rate across the entire portion of the merged network to which BNSF was being granted access.⁵ Thus, access to the Rosebluff Lead was only a relatively small part of a much larger agreement. Given the circumstances under which these agreements were hammered out, it is clear that the primary benefit to UP from granting this set of access rights was not the stream of trackage fee payments it was promised, but rather, the ability to address competitive concerns raised by the STB and other interested parties, and thereby to secure approval of its proposed merger. In effect, UP's compensation came primarily out of the efficiencies it was able to achieve through this merger. The amount of this compensation thus reflects circumstances and efficiencies spread broadly across its network. KCS, of course, received no compensation for BNSF's access to the Rosebluff Lead.

⁵ I am informed that the rate that BNSF would pay to UP under this agreement for operations on the Rosebluff Lead would be [REDACTED] mills per gross ton mile, including both cars and locomotives. Based on loaded and empty weights for BNSF's Lake Charles 2018 traffic, the ratio of locomotive miles to car miles as reported in BNSF's 2018 R-1 report, and the weight of a representative BNSF operated locomotive, this rate would translate into a payment of approximately [REDACTED] per total car mile.

The evidence I have reviewed indicates that BNSF is generating significant economic benefits, as a result of its access to the Rosebluff Lead. Table 1 shows for 2017 and 2018 the number of cars on the Rosebluff Lead by railroad. In these years roughly half of the car movements on the Rosebluff Lead have been associated with BNSF traffic. In 2015, BNSF completed the construction of the Lacassine Yard in the Lake Charles area, a major facility intended to support its growing Lake Charles business.⁶ Various BNSF documents discuss the nature of the business opportunities offered by this area.⁷ And of course, the energy, effort, and resources that BNSF has devoted to its pursuit of the right to access the Rosebluff Lead directly provides a further indication of the importance it places on this area.

There can be no doubt that the economic benefits enjoyed by BNSF as a result of its access to the Rosebluff Lead have come in part at the expense of KCS and UP. As shown in Table 1, BNSF currently picks up or delivers a very substantial share of the traffic using the Rosebluff Lead. Absent BNSF, a large portion of that traffic would undoubtedly be carried by the Rosebluff Lead's owners.

⁶ See, e.g., BNSF-HC-001597 to BNSF-HC-001613.

⁷ *Ibid.*

TABLE 1: ROSEBLUFF LEAD CAR COUNTS BY ORIGINATING RAILROAD, 2017-2018 [[

Sources and Notes:

Traffic tapes produced by each of the three railroads in this proceeding. I isolated Rosebluff Lead traffic based on shipper or consignee name. Includes local traffic.

Furthermore, BNSF's presence on the Rosebluff Lead has likely lowered the rates paid by shippers located there. Prior to the merger of UP and SP, the old Union Pacific served the Lake Charles area, but not the Lead.⁸ Shippers on the Rosebluff Lead then had a choice of two railroad alternatives- SP and KCS. With the arrival of BNSF, the number of alternatives increased to three. This change in competitive structure can only have lowered the general level of rates available to Rosebluff Lead shippers.

While BNSF does currently make some payments to UP on its Rosebluff Lead traffic, these payments provide little or no real economic benefit to UP. Rather, they compensate UP for switching and hauling services that it supplies to BNSF in an amount that essentially just covers the cost of providing those services. Table 2 shows the switching and haulage payments made in

⁸ See Union Pac. Corp.—Control & Merger—S. Pac. Rail Corp. (UP/SP Decision No. 63), FD 32760, FN 9 (STB served Dec. 14, 1996).

2017 and 2018 by BNSF to UP, along with the cost to UP of providing those services. I calculated those costs using URCS, based on the characteristics of the Rosebluff Lead-related line haul shipments by BNSF, the distances traveled between handoff points and shipper locations, and the switch fees, if any, paid by UP to KCS for deliveries into and pickups from Zone 1. As the figures in Table 2 show, these revenues and costs essentially cancel out, leaving a small positive contribution that is within the likely margin of error in the cost calculations. I note that in addition to the switch fees depicted in Table 2, BNSF is also required to make an additional payment to UP under the basic post-merger trackage rights agreement. However, as discussed above, the magnitude of these payments are minimal and insufficient to alter the basic conclusions I draw from Table 2. And even if it were the case that UP earned some small margin on these services provided to BNSF, any such gain is undoubtedly far outweighed by the losses suffered both by KCS and UP as a result of reductions in rates and diversion of traffic caused by BNSF's presence.

TABLE 2: COMPARISON OF BNSF PAYMENTS FOR ACCESS WITH COSTS[[



Sources and Notes:

[1]: Payments by BNSF to UP for access to the Rosebluff Lead. Calculated from UP-COMP-029993.

[2]: Costs incurred by UP as calculated with URCS, as described later in this report. For those movements for which KCS performed deliveries into or pickups from Zone 1, I include the switch fee paid by UP to KCS.

For these reasons, any calculation based on the earnings of the Rosebluff Lead's owners will understate its full economic value. To minimize but not eliminate this downward bias I base my per-car calculations on the volumes of UP and KCS traffic. This approach compensates, in part, for the effects of BNSF's diversion of traffic away from the Rosebluff Lead's owners.

Because of the Board's orders in Decision No. 6 and 8, KCS has directed me to calculate a trackage rights fee consistent with SSW Compensation. While I have done so based on STB established principles, given the circumstances of this proceeding, I do not believe that a strict application of SSW Compensation, regardless of which methodology is used to calculate the interest rental component, adequately compensates KCS or makes KCS whole. I share the concerns expressed by Professor Carey with respect to the application of SSW Compensation in the context of this proceeding and I believe the more appropriate methodology to employ here would be a Market-Based Access Fee.

VII. Overview of My Approach

My approach to measuring the value of the capital assets that make up the Rosebluff Lead thus focuses on the value these assets create for the railroads that own them. I first identify all of the owner traffic that uses the Rosebluff Lead. Examining this traffic, I isolate on a movement-by-movement basis the portions of their revenues and costs that can be attributed to the Rosebluff Lead, using standard STB methods. From the results of these calculations, I can

then calculate the total contribution generated by the Rosebluff Lead for its owners.⁹ Based then on the relationships for KCS and UP of their total enterprise values, and the total contribution generated by all of their rail traffic I calculate the portions of that value attributable to the Rosebluff Lead.

A. ATC Calculation of Revenue and Costs

The key to establishing the value of the Rosebluff Lead is to calculate the amount of revenue that is legitimately attributable to it. The ultimate source of the revenue, clearly, is the revenue received by the owners of the Rosebluff Lead as compensation for shipments to or from shippers located along the Rosebluff Lead. Just as clearly, however, because these shipments rely upon other parts of the owners' networks only a portion of those revenues can legitimately be attributed to the Rosebluff Lead.

To isolate the revenues attributable to the Rosebluff Lead, I relied upon the STB's Average Total Cost, or "ATC," methodology.¹⁰ This methodology was developed initially for use in SAC cases involving traffic that relied upon the stand-alone railroad, or "SARR," for only a portion of its overall journey.¹¹ In such cases, it was necessary for petitioners, respondents, and the STB to determine how the revenue for the overall movement should be divided between the

⁹ Following standard practice in proceedings such as this, I define "contribution" as the difference between the revenue generated by a movement and the variable costs associated with that movement, as measured by the STB's Uniform Rail Costing System (URCS).

¹⁰ Major Issues in Rail Rate Cases in Decisions, EP 657 (Sub No. 1) (STB Served October 30, 2006).

¹¹ This traffic is referred to as "crossover Traffic."

on-SARR and off-SARR portions of the shipment. After much commentary and consideration, the STB decided that this division should be based on the ATCs of the two segments.

Under the ATC methodology total railroad costs are divided between fixed costs and variable costs. All variable costs are related to specific movements. The ATC methodology assumes that the variable costs associated with any specific movement can be allocated to the segments traversed by that movement in proportion to their relative lengths. This allocation presumes, effectively, that the variable costs of a movement are evenly distributed across the entire length of the movement. Fixed costs, however, which are not movement specific, are allocated under the ATC methodology to all of the segments making up a railroad's network. This allocation presumes, effectively, that fixed costs are evenly distributed across the railroad's entire route mileage.

In order to be able to associate an appropriate portion of these fixed costs with specific rail movements, they must first be expressed on a per ton basis. To express these segment specific fixed costs on a per-ton basis, however, one must calculate the total number of tons carried across each segment.

To calculate average total cost by segment for a specific movement one must calculate for each segment traversed by that movement the movement-specific per-ton average variable cost and average total cost. The variable cost per ton for a specific movement and segment is equal to the variable cost per mile for the movement times the length, in miles, of the segment, divided by the number of tons being moved. The fixed cost is simply the fixed cost per ton for the segment. The average total cost for the segment and movement is then the sum of these two quantities.

VIII. Calculating SSW Compensation Components (a) and (b)

As noted above, a trackage fee calculated using the SSW Compensation methodology is the sum of three components: the incremental costs imposed on the landlord railroad as a result of the operations of the tenant railroad; a proportional share of the operating maintenance costs associated with the facilities used by the tenant; and a proportional share of the rental cost of the capital assets used by the tenant, all expressed on a per car mile basis. In this section, I describe my calculations and assumptions regarding the first two components.

A. Component (a)

At this time, I am provisionally setting the value of the first component to zero. While there are clearly limits to the amount of traffic that can be accommodated on the Rosebluff Lead, my understanding is that at this point, at least, is that capacity has not been exhausted. It is unclear at this point how and to what extent direct operations by BNSF across the Rosebluff Lead will affect operations by its owners. KCS has been informed by UP that it does not expect a significant increase in dispatching costs as a result of BNSF's presence on the Rosebluff Lead. For these reasons, I am provisionally setting the value of component (a) of the SSW Compensation calculation to zero until the operational impacts of BNSF direct access become clear.

B. Component (b)

The appropriate focus in calculating component (b) costs should be on the operating and maintenance costs associated with the assets and infrastructure that BNSF will be using for direct access to Lyondell. For this reason, in calculating a value for component (b), I considered only property taxes and maintenance-of-way expenses ("MOW").

Measuring MOW spending associated with the Rosebluff Lead was not a simple task. To my knowledge, there are no reports that present this information in a consistent and straightforward way. Instead, it had to be pieced together from a variety of source documents. A major portion of this spending is associated with a handful of large replacement projects and has to be gleaned from ad hoc or project-specific reports. Careful scrutiny of these documents was needed to avoid double counting. In addition, because of the nature of this work expenditure levels can fluctuate considerably from one year to the next. It was therefore necessary to track expenditures over a number of years in order to develop a reliable estimate of expected future spending levels. Finally, the need to track expenditures over a period of time brought with it the need also to adjust for the effects of inflation.

Because of the extent to which MOW costs fluctuate from year to year, I base my calculations on an average of expenditures over the period from 2010 to 2020 to arrive at a figure more indicative of likely forward-looking trends. Because of missing values in the sources, data averages for some items are based on data for a shorter period. The workpapers associated with my verified statement provide details.

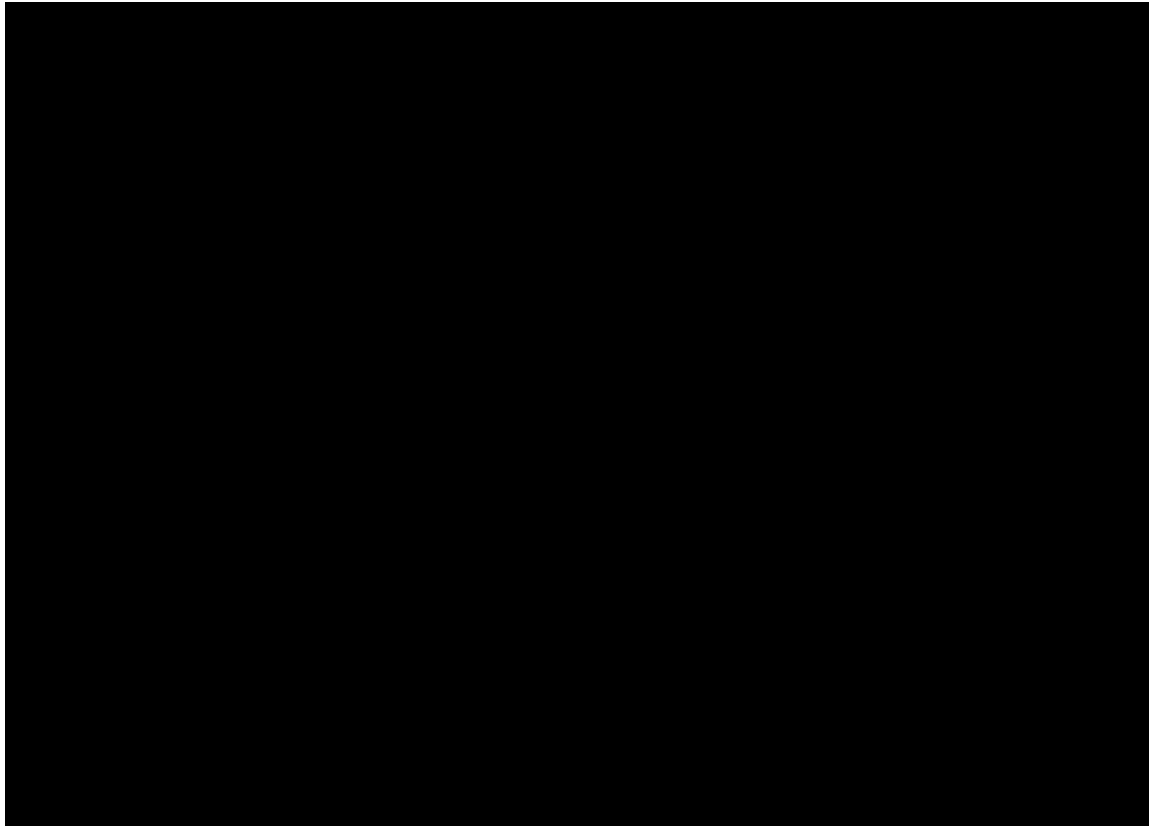
The process of calculating property tax payments involved review of records of property assessments and tax payments for property in Calcasieu Parish owned by both KCS and UP. While the tax payments are not itemized at the level of individual miles of track or parcels of land, the property assessments ultimately underlying those payments do allow me to identify the assets pertaining to the Rosebluff Lead. By dollar value, most of the relevant body of assets are classified as “side track” in the property assessment documents. From the total assessment

and overall tax bill, I calculated a rate paid by each railroad and applied that to the assessed value of the assets corresponding to the Rosebluff Lead.

Calculation of component (b) also requires a measure of car-miles on the lead. Beginning from the premise that recent traffic levels provide a reasonable estimate of future traffic levels, I calculate such a measure in two steps. First, using car counts for customers on the Rosebluff Lead and routed distances from the top of the Rosebluff Lead to each customer, I calculate loaded car miles for each railroad in each of 2017 and 2018. Next, for each railroad, I use Form 755 data from the Surface Transportation Board's R-1 Form to calculate the average ratio of empty car-miles to loaded car miles. In order to estimate empty car-miles, I apply the ratio for each railroad to the loaded car miles calculated above. I add loaded car miles to empty car miles and find that total car miles on the Rosebluff Lead averaged 258,623 car miles per year in the 2017-18 period.

Finally, I divide total operating and maintenance expenses by annual car miles to calculate component (b). A summary of my calculation of component (b) is provided in Table 3. The workpapers associated with my verified statement provide additional details.

**TABLE 3: SUMMARY OF CALCULATION OF COMPONENT (B) – OPERATING AND
MAINTENANCE EXPENSE PER CAR-MILE [[**



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Sources and Notes:

In calculating the operating and maintenance expenses presented here, I considered all available information from 2010-2020. Minor differences due to rounding.

[A]: UP-COMP-024479.

[B]: UP-COMP-024474 to 77; UP-COMP-024479.

[C]: UP-COMP-024476 to 77; UP-COMP-024478. The second line item in UP-COMP-024478 has the same project ID as a capital spending line item in UP-COMP-024476; I exclude it to avoid double-counting. I treat years without reported expenditures within two years of a year with positive reported expenditures as having zero expenditures (rather than missing data), which is consistent with the observed pattern of capital expenditures occurring generally once every two or three years..

[D]: UP-COMP-014778; UP-COMP-014792; UP-COMP-014806 to 807; Calcasieu Parish UP Property Tax Receipt (202101150912.pdf). The tax amount represents property taxes on Union Pacific's Rosebluff Lead properties (identified as Ward 4 Outside in UP-COMP-014792, 806 and 807) in the Calcasieu Parish. I obtained the tax rate of [REDACTED] by dividing the total taxes paid ([REDACTED]) on UP properties in Calcasieu Parish (UP-COMP-014778) by the total assessed value ([REDACTED]) of said properties. Only 2019 property tax documents are available.

[E]: KCS-HC-8981. The maintenance costs are based on reported gross monthly labor charges. I treat 2019 maintenance costs as missing as only two months of 2019 costs are reported in KCS-HC-8981.

[F]: Investments in the Rosebluff Lead. As explained in the note to [C], I assume that capital expenditures in years without any reported expenditures within two years of a year with positive reported expenditures are in fact zero (rather than missing)

[G]: KCS-HC-2064, Calcasieu Parish KCS Property Tax Receipt (20210122141708004.pdf). The total assessed value of Calcasieu properties ([REDACTED]) and total tax paid of \$[REDACTED] found on PDF p. 2 of the aforementioned tax receipt implies a property tax rate of [REDACTED]. Multiplying the 9.86 miles of Rosebluff Lead "side line" (found in KCS-C-2064) by the per-mile rate of \$[REDACTED] found in the first page of the tax receipt results in a total taxable assessed value of \$[REDACTED]. Applying the [REDACTED] tax rate on this taxable amount produces \$[REDACTED] in total property taxes paid for 2019. Only 2019 property tax documents are available.

[H] = Sum of rows [A] through [G]

[I]: Calculated from traffic tapes and routing results.

[J]: The ratio of total car miles to loaded car miles, based on traffic tapes, routing results, and information from each railroad's Form R-1 (Schedule 755).

[K] = [I] x [J]

[L] = [H] / [K]

IX. Calculating Component (c) – Interest Rental Component

A. Data Sources

I will begin my description of the details of my calculation of the value of the Rosebluff Lead by reviewing the data sources I used. My calculations are based primarily on data for calendar years 2017 and 2018. I focused on these two years because they were the two most recent years for which all of the necessary inputs to the calculation were available.

1. Traffic Tapes

The three railroads that are parties to this proceeding – KCS, UP, and BNSF – all provided computerized summaries of the traffic on their networks that used the Rosebluff Lead.

For the most part, the movements for which the parties provided detailed data were selected based on the fact that they either originated or terminated in the Lake Charles area.¹²

Because the Rosebluff Lead is an important part, but still only a part, of the Lake Charles area rail network, the computerized data files provided by the parties generally contained a mixture of traffic using the Rosebluff Lead and traffic that did not use the Rosebluff Lead. To address the question posed to me, therefore, I had to separate the Rosebluff Lead traffic from the non-Rosebluff Lead traffic.

The only information contained in the computer files produced by the parties that would reliably identify the subset of movements that used the Rosebluff Lead was the identity of the shipper or consignee located in the Lake Charles area. I therefore extracted all of the unique shipper and consignee names appearing in the traffic files. Manual review of the names on this list identified some obvious misspellings and minor naming variations. After cleaning, and based on a combination of information provided by the parties and gleaned from internet searches, I then classified the listed shippers into two groups: shippers definitely located on the Rosebluff Lead and shippers who were either NOT on the lead or whose locations could not be definitely determined.

The list of shippers produced by this process is shown in Appendix B.

¹² To be more specific, UP and BNSF selected the movements to produce based on whether the movement in question originated or terminated in the Lake Charles area. In contrast, the movements for which KCS provided data were selected based on the identity of the shipper at the Lake Charles and of the trip, and whether that shipper was located on the Lead.

2. Carload Waybill Sample

The second primary input to my calculations was the Carload Waybill Sample. The STB, which collects and distributes this data source, describes it as follows:

It is a stratified sample of carload waybills for all U.S. rail traffic submitted by those rail carriers terminating 4,500 or more revenue carloads annually. See 49 C.F.R. §§ 1244.1 to 1244.5. Waybill data has broad application in, among other things, rate cases, the development of costing systems, productivity studies, exemption decisions, and analyses supporting regulations. Waybill data are also used by transportation practitioners, consultants, and law firms in preparing verified statements to be submitted in formal proceedings before the Board or other public agencies. Various federal agencies use the Waybill Sample as part of their information base, and many states use it as a source of information for developing state transportation plans.¹³

The Carload waybill sample is a random sample of shipments carried by large U.S. railroads. It contains a great deal of information about the sampled shipments, including their origins and destinations, the revenue earned by the carrier, the weight of the shipment, the number of carloads, the commodity carried, the distance traveled, and the variable cost associated with each shipment, among other attributes. In the case of movements involving an interchange, the data in the sample identified the railroad handling each segment, as well as the starting and ending point of each segment. In addition, attached to each record is a weight that can be used to expand the sample to yield population-based estimates, such as total tons of freight carried, or total revenues earned.

¹³ <https://prod.stb.gov/reports-data/waybill/>, accessed 1/14/2021.

B. Using the ATC Methodology to Calculate the Revenue Generated by the Lead

1. Key Inputs

As the description above indicates, the ATC calculation requires a number of inputs, including traffic density, fixed costs, variable costs, and revenue. Below I describe how each of these inputs was calculated.

Traffic Density

The fixed cost portion of the ATC calculation described above requires information on the total number of tons of freight traversing each rail segment used by Rosebluff Lead traffic. The required total must include all traffic crossing each of these segments, including traffic that neither originates nor terminates on the Rosebluff Lead. To calculate these totals, I turned to the carload waybill sample. To identify the segments used by each movement in the sample I used the Brattle rail network model. This model is described in Appendix C. It produces a list of all the rail segments used by a specific railroad in order to carry a shipment from a specific origin to a specific destination. I used this model to produce such a list for all of the shipments contained in the sample.¹⁴ To each of the segments used by a shipment, I attached the weighted tons associated with that shipment. For each segment in the rail network, I then summed across all shipments using the segment to compute the total number of weighted tons on the segment. For

¹⁴ Coding errors and missing data sometimes made it impossible to determine the routing for a shipment. This outcome occurred in 7% of total movements across the 2017 and 2018 waybill samples. My calculations ignore these unroutable shipments. Because they were predominantly off-lead movements, the effect of ignoring them was generally to reduce off-Lead traffic densities, which in turn had the effect of increasing the amount of revenue allocated to the off-Lead portions of Lead shipments. Thus, the overall effect of these errors is to *reduce* the calculated value of the Lead.

simplicity, I will refer to these calculated values of total tons of freight by segment as “traffic density.”

While the traffic data produced by the parties to this proceeding could not be used to calculate off-Rosebluff Lead traffic densities, they could be used to calculate traffic densities on the segments making up the Rosebluff Lead.¹⁵ Indeed, the traffic data produced by the railroads could be expected to produce a picture of traffic movements along the Rosebluff Lead that is far more accurate than that derived from the waybill sample. The traffic data, unlike the waybill sample, make it possible to identify the precise locations on the Rosebluff Lead where shipments originate and terminate. In addition, while the waybill sample is just a sample, the traffic data represent a complete census of all movements on the Rosebluff Lead.

To maximize the accuracy of my calculations I relied upon the traffic data to calculate traffic density along the Rosebluff Lead, and the waybill sample to calculate traffic densities for other portions of the national rail network. To do this I routed all of the Rosebluff Lead traffic as recorded in the traffic data using the same procedures described above in connection with the waybill sample. Then, for the segments that make up the Rosebluff Lead, I substituted the traffic density measures derived from the railroad traffic data for the traffic density measures derived from the carload waybill sample.¹⁶

¹⁵ The datasets produced by UP, BNSF and KCS were designed to include all shipments that originated or terminated on the Rosebluff Lead, and not necessarily any others.

¹⁶ Specifically, for those segments that are on the Rosebluff Lead, the total tons measure I use is calculated from the results of the Brattle Network Model’s routing of the railroad traffic tapes, while for every other link in the rail network, total tons are based on the Brattle model’s routing of the carload waybill sample.

Fixed Costs

As noted above, the ATC requires information about the URCS fixed costs for each railroad. To calculate these costs, I first calculated system-wide variable cost for each Class I railroad by summing the weighted variable costs for all movements for that railroad in the confidential waybill sample.

In calculating the total variable cost for a railroad, I included only the variable costs associated with movements within the U.S. I therefore excluded any movements or portions of movements with origins and destinations outside the U.S.¹⁷ In the case of cross-border movements or portions of movements I scaled down the variable costs reported in the waybill sample by the ratio of the length of the U.S. portion of the movement to the total length of the movement. I determined the crossing points and distances to crossing points for these cross-border movements using the Brattle network model.

After summing the total variable costs adjusted in this fashion, I then multiplied the result by the difference between the fixed cost multiplier for this railroad as reported by the URCS costing software and one. These multipliers are shown below in Table 4. The multiplier values were reasonably stable across years, but differed across railroads, with UP and KCS having a somewhat higher ratio of fixed to variable costs than BNSF.

¹⁷ I focused on a “portion” of a movement when the waybill record indicated that the associated shipment involved an interchange from one railroad to another. In such cases the waybill sample reported variable costs separately for the different single-railroad segments. If any border-crossing-related scaling of variable costs took place in such cases, it involved only the segment that crossed the border.

TABLE 4: URCS FIXED COST MULTIPLIERS

Railroad	2017 Multiplier	2018 Multiplier
BNSF	1.3756	1.3721
KCS	1.4681	1.4562
UP	1.4232	1.4235

Sources and Notes:

URCS Constant Cost Markup Ratio for 2017 and 2018.

Variable Costs

I calculated the variable costs of shipments reported in the UP and KCS railroad traffic files that originated on or terminated on the Rosebluff Lead using the STB's URCS program. When utilized in batch mode the URCS costing software calculates the variable cost associated with a rail movement based on the parameters listed in Table 5. For distance (i.e., the over the rail mileage of the route from the origin to the destination of the shipment), I used the routed mileage computed by the Brattle rail network model. Values for other parameters were readily ascertainable from the information contained in the traffic files produced by the three parties.¹⁸ For movement costing purposes I set the URCS circuitry factor to 1.0.

¹⁸ The only exception to this general statement involved the traffic data produced by KCS, which did not include information on car ownership. However, examination of data from the confidential waybill sample for KCS movements into or out of the Lake Charles area indicated that over 95 percent of the cars used in these movements were privately owned. Based on this information I assumed that in the movements listed in the KCS traffic files all of the cars were privately owned.

TABLE 5: INPUTS TO THE URCS COSTING PROGRAM

Railroad
Segment Type
Distance
Number of Cars
Freight Car Type
Freight Car Ownership
Shipment Weight per Car
Commodity Types
Shipment Size

To verify the accuracy of these costing procedures I tested their ability to reproduce the variable costs shown in the 2018 confidential waybill sample for a sample of approximately 2,300 shipments. There were small differences between the costs I calculated and the costs in the waybill sample. However, when I regressed the cost per car contained in the waybill sample on the cost per car I calculated the estimated coefficient on the costs I calculated was 0.997 with a t-statistic of 461.91. This coefficient was statistically indistinguishable from 1.00. The estimated constant in this regression was -3.0, and was not statistically distinguishable from zero. From these tests I concluded that my costing procedure produced results that at the movement level were extremely close to those employed in preparation of the waybill sample, and at an aggregated level would be essentially indistinguishable.

To assure the most accurate costing possible, I calculated the distances for the Rosebluff Lead shipments accounting for the switch movements taking place along the Lead. I understand that UP and KCS operate the Rosebluff Lead under an agreement whereby deliveries to or pickups from Rosebluff Lead shippers located in Zone 1 are handled by KCS, while UP handles

deliveries to or pickups from Lead customers located in Zone 2.¹⁹ I am informed that when it becomes necessary under these operating arrangements to transfer cars between the two co-owners of the Rosebluff Lead, the transfer takes place in the Rosebluff Yard.

For line haul movements²⁰ involving a handoff at the Rosebluff Yard I calculated the distance used to compute variable cost based on a routing from the non-Lake Charles endpoint of the trip to the Yard. To the resulting variable cost I add the switch fees paid to the carrier that handles the final delivery. I assumed that this sum represents the total variable cost for the line haul carrier for the movement between the non-Lake Charles end of the trip and the location of the Lake Charles shipper or consignee.

I also used URCS to calculate the costs of switch movements along the Lead. I calculated the lengths of these movements based on the distance from the Rosebluff Yard to the location of the Rosebluff Lead shipper, and treat them as inter-terminal movements because they

¹⁹ The boundary between Zone 1 and Zone 2 is just north of the beginning of the Montell Lead, where the Lyondell facility is located. This is approximately 3.75 miles down the lead. See “1981 JT-UP-Lake Charles zone switch w 1999 amend.pdf”: “the industrial area West Lake-Lockmoor, Calcasieu Parish, Louisiana shall be divided into Zones 1 and 2 with the dividing point between zones being that point at which the jointly-owned track acquired by deed of May 21, 1947 crosses Bayou D’Inde west of State Highway No. 108 and west of Rose Bluff Yard.”

²⁰ I use the term “line haul movement” to refer to the segment of a shipment’s overall routing with one end (either an origin or a destination) in the Lake Charles area, and the other in a different geographic area. In the case of a single railroad movement involving a Lead shipper, the line haul movement would be the entire movement, except for the switch movements described above. In the case of an interchange movement, the line haul movement would be the single railroad segment that either originates or terminates in the Lake Charles area.

involved handoffs between different railroads.²¹ All other costing parameters for these movements were taken from the line haul movements with which they were associated.

Revenue

The traffic files produced by UP and KCS contained data on the revenues associated with line haul movements involving the Lake Charles area. For switch movements along the Rosebluff Lead I took as revenues the switch fees paid by the line haul carrier.

2. Calculating the Revenues and Costs associated with the Lead

Having calculated movement-specific URCS variable costs and tonnage, and segment-specific URCS fixed costs per ton, I was able through a large but fairly simple calculation to use the ATC methodology to assign the revenue and URCS variable costs of the traffic using the Rosebluff Lead to the individual segment level. For each movement, I allocated to each segment traversed by the movement an amount of revenue equal to the average total cost per ton for that segment, divided by the sum of the average total cost per ton for all of the segments traversed by the movement. I also allocated to each segment an amount of variable cost equal to the length of that segment divided by the total distance traversed by the movement.

In a small number of cases use of this approach resulted for some segments in allocations of movement-specific revenue that were less than the associated variable costs. In these cases, I

²¹ Note that the movements that I cost as switch movements occur only where there is a handoff from one railroad to another, e.g., a shipment by UP to a Zone 1 consignee, or a shipment by KCS to a Zone 2 consignee. While there may be switching involved in getting a UP shipment to a Zone 2 consignee, I don't know when or to what extent this occurs. Hence, I cost all UP deliveries to Zone 2 consignees, or KCS shipments to Zone 1 consignees as through moves from the non-Lake Charles origin directly to the consignee location.

applied the “Alternate ATC” methodology outlined by the Board in Ex Parte 715.²² Specifically, I increased the movement specific revenue allocated to any negative contribution segment by an amount that would bring that contribution to zero, and then proportionally reduced the movement specific contribution of positive contribution segments by an offsetting amount.

In the case of the small number of Rosebluff Lead movements for which overall variable costs exceeded revenue, there was obviously no way of assigning revenues to segments that would eliminate negative contribution segments. In these few cases, I made no further adjustments to the initial ATC-based assignment of movement specific revenues to segments.

Summing across all movements using the Rosebluff Lead, I was then able to compute the amount of contribution (i.e., the difference between revenue and variable cost) associated with each rail segment making up the Rosebluff Lead.

Results of these calculations are shown, for each segment that is relevant to BNSF’s proposed direct service of the Lyondell facility, in Table 6.

²² Rate Regulation Reforms in Decisions, EP 715 (STB Served July 25, 2012).

**TABLE 6: CONTRIBUTION ASSOCIATED WITH ROSEBLUFF LEAD SEGMENTS TRAVERSED BY
LYONDELL MOVEMENTS [[**



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Sources and Notes:

Calculated using the ATC methodology as described in this statement.

3. Development of Valuation Multipliers

Taking the contribution associated with the Rosebluff Lead as earnings, calculation of a measure of capitalized earnings required next a capitalization factor. For this purpose, I considered two alternatives. The first was based on the ratio of the enterprise value to total railroad-wide contribution. The second was based upon the reciprocal of the pre-tax industry-wide weighted average cost of capital (“WACC”) as calculated by the STB.

Enterprise value is a widely used measure of the overall market value of a public company. It is defined as the sum of the market value of the company’s outstanding stock (also

referred to as its market capitalization) and the value of its outstanding debt. End of year values for these quantities are readily available from Bloomberg.²³

I also computed a multiplier based on the pre-tax industry-wide WACC as reported by the STB.²⁴ To turn this quantity into a multiplier, I simply expressed the interest rate as a fraction rather than a percentage and took its reciprocal. This approach is equivalent to a net present value calculation under the assumption that contribution is equivalent to net income, and that net income remains constant over time.²⁵

Of these two approaches, I regard the enterprise value-based approach to be the more reliable. As I have noted, the WACC based approach treats contribution as though it were net income, which it is clearly not. Contribution is the difference between revenue and variable costs, and some portion of it must be reserved to cover fixed costs before one arrives at a measure of net income. In contrast, the enterprise value-based measure fully reflects investors' assessments of the relationship between contribution and the value of the company, taking into account the necessity of covering fixed costs. In addition, the WACC based multiplier fully transmits short term fluctuations in revenue and contribution into changes in value. In contrast, the enterprise value based multiplier should reflect longer-term expectations regarding company

²³ Bloomberg L.P. (2020). Enterprise value data for Kansas City Southern and Union Pacific Corporation retrieved from Bloomberg database on December 14, 2020.

²⁴ <https://prod.stb.gov/reports-data/economic-data/>, accessed 1/14/2021.

²⁵ A comment about inflation is in order here. The weighted average cost of capital calculated by the STB is apparently expressed in nominal terms. As such, it represents the sum of a real interest rate, and an expected annual rate of inflation. To the extent that the expected future rate of inflation is some value other than zero, my calculation is equivalent to a standard net present value calculation under the assumption that contribution is equivalent to net income, and net income remains constant *in inflation-adjusted terms* over time

earnings, profitability, and growth, and thus should produce more stable and consistent results. Moreover, the WACC-based method implicitly assumes that contribution remains constant for an indefinite future period – an assumption that is at best improbable. I note, finally, that the enterprise value approach is consistent with the methodology used in the original St. Louis and Southwestern proceeding that gave the SSW Compensation methodology its name.²⁶

Calculation of Enterprise Value-Based Multipliers

The starting points for my calculations were the 2017 and 2018 end-of-year enterprise values for UP and KCS, the two Lead owners, as reported by Bloomberg.²⁷ I then made a number of adjustments to these values to focus more precisely on the values of the capital assets that will be used by BNSF.

I first scaled the reported enterprise values down by the end of year values of property and equipment assets to total assets. It was unclear to what extent BNSF would benefit from or require the use of the non-tangible assets eliminated by this adjustment, and so to be conservative, I removed them from the calculation.

For KCS a second adjustment was necessary to assure comparability between the enterprise value measure and the contribution measure used to calculate the multiplier. KCS has extensive operations in Mexico, and its enterprise value reflects the combined earnings of its operations north and south of the border. In contrast, the variable costs and revenues used to calculate system-wide contribution are based entirely on the U.S. operations of KCS. To arrive

²⁶ See SWW I.

²⁷ Bloomberg L.P. (2020), *op cit*.

at an internally consistent multiplier I needed to scale the total KCS enterprise multiplier down to reflect just the value of its U.S. operations. I based this adjustment on the share of total KCS property and equipment assets located in the U.S. Values for these shares are published annually by KCS.²⁸

The third adjustment focused the valuation on the asset categories relevant to an SSW-Compensation-based trackage fee calculation. If BNSF operates on the Lead under a trackage rights arrangement it will not be using the rolling stock or train crews of UP or KCS. Instead, it will provide those inputs itself. The assets of UP and KCS that it would be using, and hence that it would need to pay for, would be the below-the-wheel assets. For this reason, I scaled both the enterprise values of the two firms, adjusted as described above, by the ratios of road investment to total investment in railway property used in transportation service, as reported in the firms' R-1 reports.

To calculate network-wide contribution I summed for each railroad the total weighted variable costs²⁹ as reported in the waybill sample for movements or portions of movements

²⁸ Kansas City Southern, (2018). 2017 Form 10-K; Kansas City Southern, (2019). 2018 Form 10-K. https://investors.kcsouthern.com/financial-information/sec-filings?sc_lang=en

²⁹ In summing the weighted variable costs included in the waybill sample I excluded any costs associated with movements outside the U.S. Thus, as I described above in connection with the calculation of variable costs for movements in the traffic data produced by the railroads that are parties to this proceeding, I excluded single movements or portions of movements with origins and destinations outside the U.S. In addition, for cross-border movements I included a share of the weighted variable costs reported for the movement that was equal to the share of the total routed mileage of the movement falling within the U.S.

involving these railroads. I then subtracted this measure from the total freight revenues³⁰ for those railroads as reported in their annual R-1 filings to the STB.³¹

To calculate the enterprise value based multipliers, I then simply divided the adjusted enterprise values by total contribution. These calculations are shown below in Table 7.

TABLE 7: CALCULATION OF ENTERPRISE VALUE BASED MULTIPLIERS

	KCS 2017	KCS 2018	UP 2017	UP 2018
	[A]	[B]	[C]	[D]
[1] Enterprise Value (\$M)	\$13,703	\$12,624	\$121,138	\$122,904
[2] Property and Equipment as Share of Assets	0.91	0.92	0.89	0.89
[3] US Share of Assets	0.62	0.62	1.00	1.00
[4] Road Investment as Share of Total Investment	0.72	0.72	0.79	0.79
[5] Contribution (\$M)	\$353	\$325	\$8,178	\$8,491
[6] Enterprise Value Multiplier	15.92	15.92	10.46	10.18

Sources and Notes:

[1]: End-of-year enterprise value from Bloomberg (12/29/2017 and 12/31/2018).

[2]: Property and equipment as a share of total assets, calculated from each railroad's 10-K.

[3]: KCS share of assets located in the US, calculated from the KCS 10-Ks.

[4]: Total road investment as a share of total investment in railway property used in transportation service, calculated from each railroad's R-1 Schedule 352B.

[5]: Total contribution, or operating freight revenue from each railroad's R-1 Schedule 210, less URCS cost, calculated from the Confidential Waybill Sample.

[6] = [1] * [2] * [3] * [4] / [5]

³⁰ Kansas City Southern. (2017). 2017 Form R-1; Kansas City Southern, (2018). 2018 Form R-1. https://investors kcsouthern.com/financial-information/annual-reports?sc_lang=en

³¹ It was not possible to derive estimates of system-wide revenues from the waybill data. The version of the waybill sample that I received contained revenue data only for movements terminated either by UP, KCS or BNSF. Because all three railroads originate some number of multi-carrier shipments, portions of their revenue were redacted in the file used in my analysis. This problem was particularly severe for KCS, which participates in relatively more interchange movements than either UP or BNSF.

Calculation of WACC Based Multipliers

As noted above, to calculate a WACC-based multiplier, I simply expressed the pre-tax industry-wide WACC as a fraction rather than a percentage and took its reciprocal. However, for the same reasons discussed above in connection with the enterprise value based approach, I then multiplied this result by the ratios of road investment to total investment in railway property used in transportation service, as reported in the firms' R-1 reports.

Results of these calculations are shown below in Table 8.

TABLE 8: CALCULATION OF WACC BASED MULTIPLIERS

		KCS 2017	KCS 2018	UP 2017	UP 2018
		[A]	[B]	[C]	[D]
[1]	WACC	10.04%	12.22%	10.04%	12.22%
[2]	1/WACC	9.96	8.18	9.96	8.18
[3]	Road Investment as Share of Total Investment	0.72	0.72	0.79	0.79
[4]	WACC Based Multiplier	7.19	5.87	7.88	6.46

Sources and Notes:

[1]: STB-calculated industry WACC.

[2] = 1 / [1]

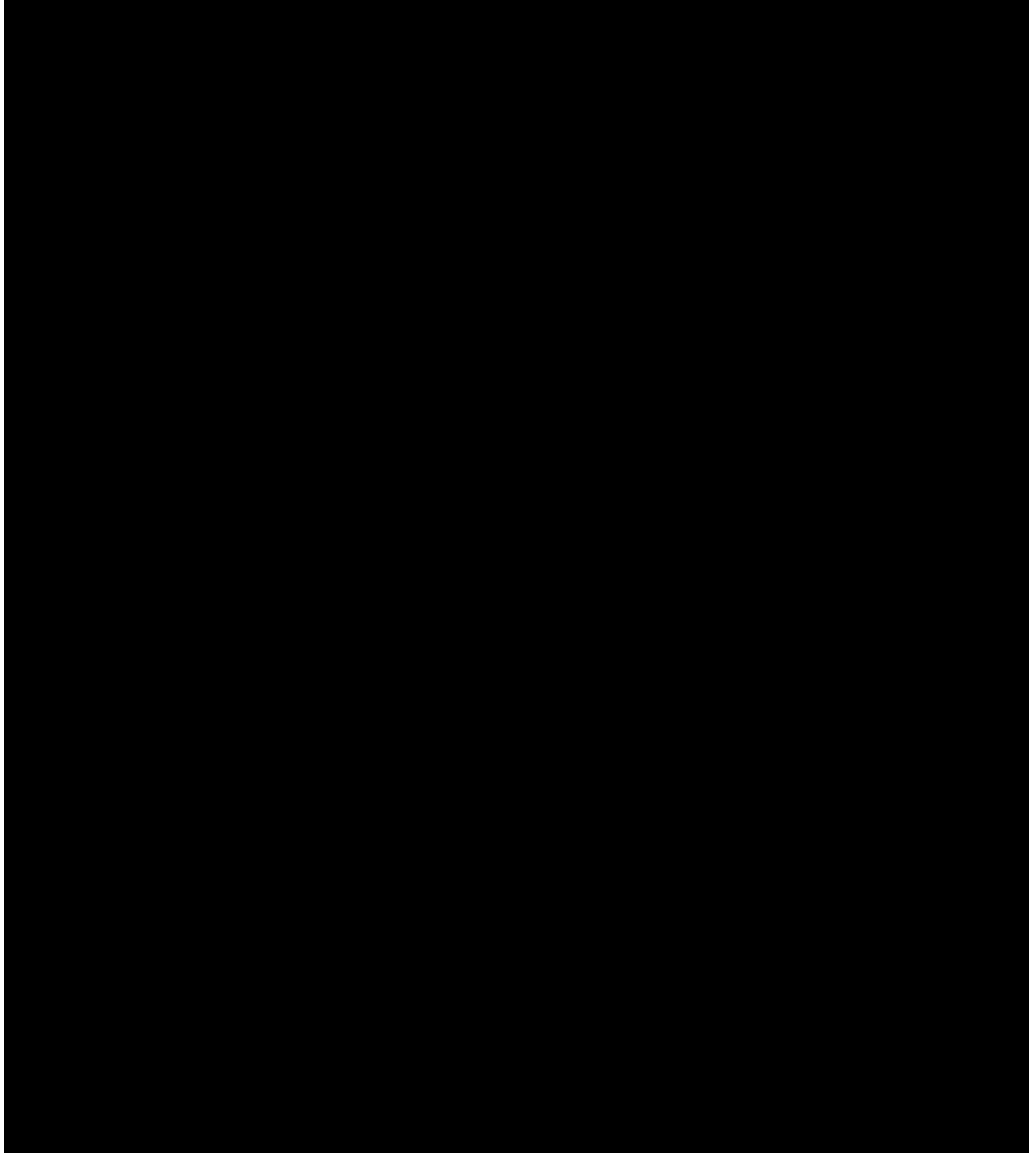
[3]: Total road investment as a share of total investment in railway property used in transportation service, calculated from each railroad's R-1 Schedule 352B.

[4] = [2] x [3]

4. Calculation of the Value of the Rosebluff Lead Segments Used by Lyondell Traffic

Next, I calculate the value of the Rosebluff Lead segments used by Lyondell traffic, using the results from the contribution and multiplier calculations. In Table 9, I present calculations that multiply, for each year, (1) the contribution generated by the Rosebluff Lead segments used by Lyondell traffic by (2) the two multipliers calculated above in Table 7 and Table 8. Using the enterprise value-based multiplier, which for reasons I explain above is more reliable than the WACC-based multiplier, the capital asset value associated with the relevant segments ranges from [[REDACTED]] across the two years. The average is [[REDACTED]].

**TABLE 9: CALCULATION OF ASSET VALUES FOR ROSEBLUFF LEAD SEGMENTS USED BY
LYONDELL TRAFFIC [[**



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Sources and Notes:

[1] - [2], [4] - [5]: Calculated using the ATC methodology.

[3] = [1] + [2]

[6] = [4] + [5]

[7]: Average of [3], [6]

[8] - [11]: Multipliers, as calculated in Table 7 and Table 8.

[12] = [1] x [8]

[13] = [2] x [9]

[14] = [12] + [13]

[15] = [4] x [10]

[16] = [5] x [11]

[17] = [15] + [16]

[18]: Average of [14], [17]

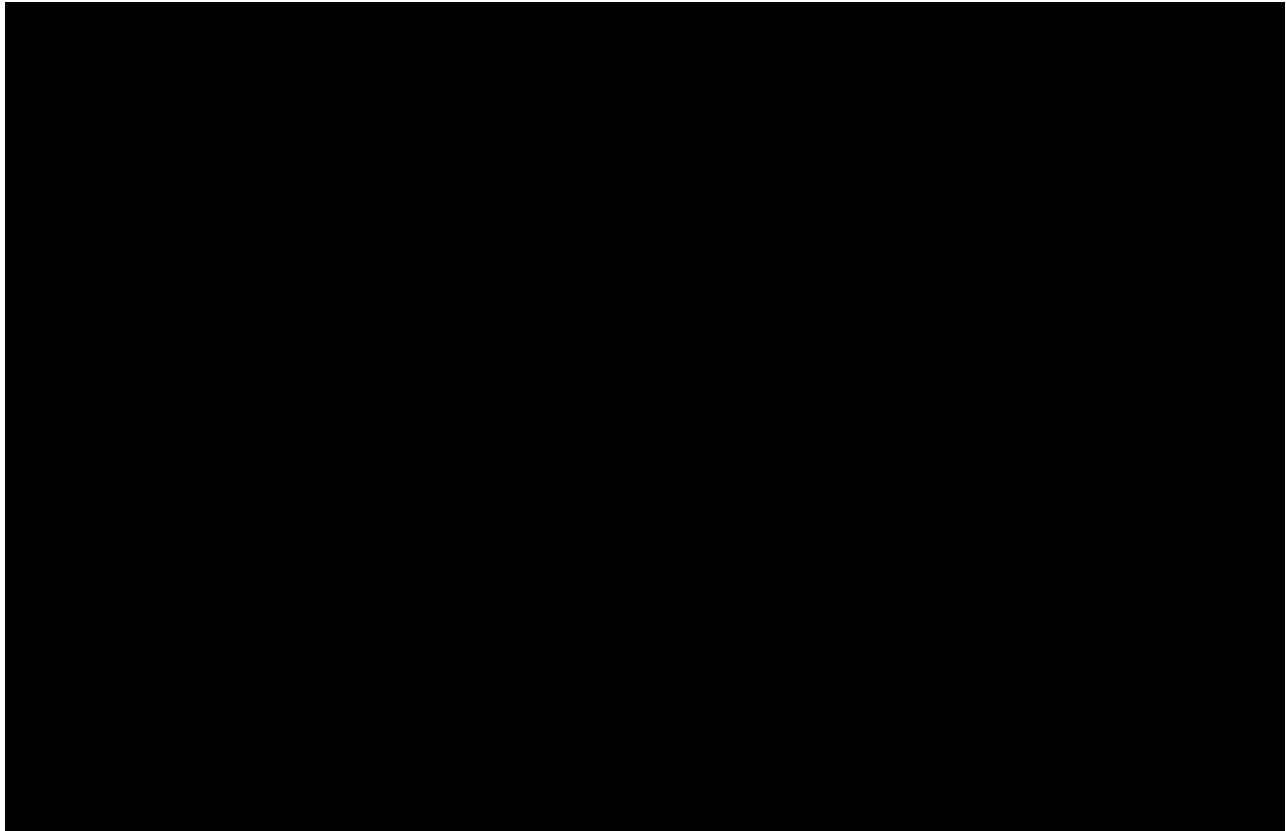
5. Calculation of Traffic Levels on Rosebluff Lead Segments Used by Lyondell Traffic

To complete the interest rental component calculation, a measure of car miles is necessary, so that component (c) can be expressed on a per car mile basis. As I discussed above, it is important that the set of movements from which I calculate car miles be limited to the same set of movements that were used to calculate contribution, namely those movements from the KCS and UP traffic tapes to on-lead customers. I also restrict this calculation to only include miles on those segments used by Lyondell traffic. This simple calculation yields totals of 65,371 car-miles in 2017 and 68,850 car miles in 2018.

6. Calculation of Rental Cost of Capital Per Car Mile

Next, I calculate the rental cost of capital per loaded car mile. I first multiply the capital asset values derived in Table 9 by the STB-approved industry-wide WACC to determine an annualized capital asset value. Next, I divide by the loaded car miles in the corresponding year, to calculate rental rate on a per loaded car mile basis. I then adjust this rental rate to account for inflation since 2017-18. Finally, I take a simple average of these inflation-adjusted rental rates and find a rate of [[REDACTED]] per loaded car mile.

**TABLE 10: CALCULATION OF INTEREST RENTAL COMPONENT OF ROSEBLUFF LEAD
SEGMENTS USED BY LYONDELL TRAFFIC, PER CAR MILE [[**



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Sources and Notes:

[1], [6]: Contribution generated by Rosebluff Lead links needed to service Lyondell/Equistar, as calculated using the ATC method by The Brattle Group.

[2] = [1] * STB-calculated industry WACC for 2017 (10.04%).

[3], [8]: Car-miles on the relevant links. Limited to those movements included in the ATC calculation from the KCS and UP traffic tapes.

[4] = [2] / [3]

[5] = [4] * 2017 Inflator calculated using the STB's Inflation-Adjusted Index (1.14).

[7] = [6] * STB-calculated industry WACC for 2017 (12.22%).

[9] = [7] / [8]

[10] = [9] * 2018 Inflator calculated using the STB's Inflation-Adjusted Index (1.08).

[11]: Average of [5], [10]

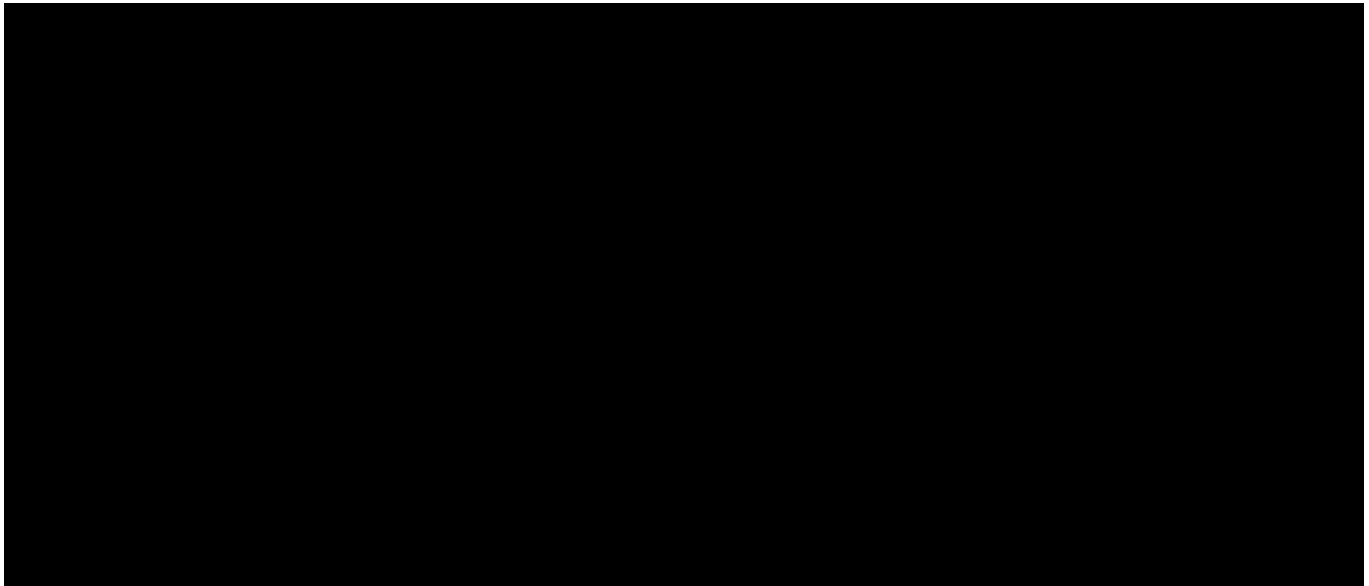
[12]: Calculated from Routing Results.

[13] = [11] x [12]. Minor differences due to rounding.

X. Calculation of SSW Compensation

I complete my implementation of the SSW Compensation methodology by combining the results of Table 3 and Table 10, with one additional adjustment. My instructions are to implement the SSW Compensation methodology and present results on a dollar per *total* car mile basis. In other words, the trackage fee will eventually be paid on both loaded and empty car miles, and thus the denominator used to calculate the rate should include both loaded and empty car miles on the Rosebluff Lead segments used by Lyondell traffic. My calculation of the operating and maintenance costs are already expressed on a per total car mile basis.

However, as explained above, I initially calculated the rental cost component on a dollar per *loaded* car mile basis to maintain consistency between the traffic used in my ATC calculation and the traffic in the denominator. Thus, I make a final adjustment to convert to per total car mile basis, using information first presented in Table 3 on the ratio of empty car miles to loaded car miles. Table 11 below displays the results of my final calculations. I calculate an SSW Compensation rate of \$17.17 per total car mile, including both loaded and unloaded car miles.

TABLE 11: SSW COMPENSATION METHODOLOGY SUMMARY [[

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[1]: Provisionally set to zero, as discussed in Section VIII.A.

[2]: See calculations in Table 3.

[3]: See calculations in Table 10.

[4]: Ratio of total car miles per loaded car miles, from Table 3. Calculation is described in Section VIII.B, and is provided in my workpapers.

[5] = [3] / [4]

[6] = [1] + [2] + [5]

APPENDIX A – RESUME OF DR. KEVIN NEELS

DR. KEVIN NEELS
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Dr. Kevin Neels is the former head of the Transportation Practice at the Brattle Group. Dr. Neels has more than 35 years experience as a consultant and expert witness in the rail, trucking, courier, postal, aviation, and automotive industries. He has led many significant engagements relating to competition, market structure, pricing, revenue management, distribution strategy, regulation, and public policy. His work has addressed issues related to system planning, competition policy, privatization, and congestion management.

Prior to joining *The Brattle Group*, and Dr. Neels served as Vice President and leader of the transportation practice at Charles River Associates. He has also served as a researcher in the Urban Policy Program at the Rand Corporation and the Transportation Studies Program at the Urban Institute, as a Director in the Transportation Practice at the consulting firm of Putnam, Hayes & Bartlett, as a Management Consultant in the Transportation Practice of the firm now known as KPMG. Dr. Neels is a former Chairman of the standing Committee on Freight Transportation Economics and Regulation of the Transportation Research Board, an arm of the National Academy of Sciences. He is currently a member of the Transportation Research Board's standing Committee on Airport and Airway Capacity and Delay.

Dr. Neels has published numerous research reports, monographs and articles for peer-reviewed journals. He has often been asked to offer expert testimony in legal and regulatory proceedings. He regularly serves as an invited speaker at conferences and industry forums, and his opinions and observations on industry developments are frequently quoted in the popular and trade press. Dr. Neels earned his Ph.D. from Cornell University.

A sample of the project experience of Dr. Neels is shown below.

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EXPERIENCE

Freight Transportation

- ◆ On behalf of the Railway Supply Institute's Committee on Tank Cars Dr. Neels reviewed the Pipeline and Hazardous Materials Safety Administration's (PHMSA) proposed regulations regarding standards and operational controls for trains and tank cars transporting high-hazard flammable liquids. The primary focus of the proposed regulations, and of Dr. Neels' analysis, was on the rapidly growing use of rail transportation for crude oil from non-conventional production area and its continuing use for ethanol for motor fuel use. He conducted detailed analyses of the geographic structure and growth trends of these markets, and carefully evaluated to the ability of the current and projected tank car fleet to meet their transportation needs. He identified conflicts between the proposed schedule for retrofitting the existing care fleet to meet new proposed new safety standards, and the capacity of the network of existing and proposed modification facilities to carry out the required work in a timely fashion, and compared the economic impacts of the proposed schedule with those of an alternative schedule designed to minimize the down time caused by the upgrade process while prioritizing the upgrading of those portions of the existing fleet posing the greatest safety risks. He also conducted a detailed review of the PHMSA regulatory impact analysis, showing that the agency had underestimated the overall costs of complying with the proposed new regulations while at the same time overstating likely safety benefits. He presented his finding in presentations and written comments with regulatory officials in the U.S. and Canada.
- ◆ Dr. Neels served as the principal competition witness for the acquiring party in a proceeding before the Surface Transportation Board regarding the merger of the two largest short line railroad holding companies in the U.S. In connection with this work he analyzed every point of contain between the rail systems owned by these two companies, an analyzed the competitive implications of placing the combined networks under common control.
- ◆ For an Ex Parte proceeding before the Surface Transportation Board Dr. Neels provided written testimony regarding procedures for settling disputes over the reasonableness of rail transportation rates. His testimony related to aspects of the Standalone Cost methodology employed by the Board in resolving these disputes, focusing in particular on the role that third party traffic plays in such analyses, and the manner in the revenues associated with such traffic are assigned to different portions of the routes followed by such traffic. His testimony discussed the typical structure of North American freight rail networks, and the roles that gathering, branch and main lines play in assuring the overall economic viability of the network as a whole.
- ◆ For a major U.S. based freight railroad, Dr. Neels developed a system of models to predict traffic levels and revenues by carrier for the North American freight rail market under alternative scenarios regarding market structure and regulatory policy. This modeling system incorporated detailed representations of the North American rail and highway networks, algorithms for

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determining shipment routing under alternative operating policies, and a series of statistical models capturing the underlying structure of freight traffic flows.

- ◆ For a non-U.S. government client, Dr. Neels led the team serving as fairness advisors in connection with the privatization of a government owned railroad. This engagement involved review of and commentary upon the bidding procedures employed in the transaction, analysis of the extent to which different bidders addressed and resolved policy concerns expressed by government officials, and advising government officials regarding the extent to which the various bids received reflected the full market value of the operation.
- ◆ On behalf of a provider of services to long-distance trucking firms, Dr. Neels offered expert testimony on the status of the trucking market, and on the extent to which a downturn in that market affected the value and economic viability of trucking firm service providers during a period in which his client concluded a series of acquisitions.
- ◆ In support of a key economic witness in a hearing regarding refined petroleum product pipeline rates before the Federal Energy Regulatory Commission, Dr. Neels conducted an analysis of the relationship between product prices in the different geographic areas linked by the pipeline system. He also examined alternative transportation modes and concentration in the pipeline's origin markets.
- ◆ For a major U.S. railroad involved in a commercial dispute over trackage rights and trackage fees, Dr. Neels conducted a detailed analysis of over-the-track incremental operating costs. This analysis involved, among other things, extensive use of the Uniform Rail Costing System maintained by the Surface Transportation Board.
- ◆ For a major North American rail car manufacturer involved in a patent infringement lawsuit Dr. Neels offered expert testimony on the economic value of an innovative car design relative to existing designs, and on the damages imposed on the manufacturer as a result of infringement of its patents on this new design.

Postal

- ◆ Over a multiyear period Dr. Neels has provided technical analysis and consultation to UPS on a wide range of economic and regulatory issues before the Postal Regulatory Commission. His work has involved detailed analyses and critical reviews of Postal Service costing procedures, provision economic commentary on a wide range of regulatory proposals, review and analysis of Postal Service investment programs, analysis of Postal Service incentives and behavior, and examination of Postal Service impacts on private parcel delivery markets.
- ◆ Dr. Neels was retained by the Public Representative of the Postal Regulatory Commission to provide testimony on the regulatory implications of the service standard cutbacks the U.S. Postal Service was seeking to implement. These service standards were part of a major cost-cutting initiative on the part of the Postal Service. Testimony prepared by Dr. Neels examined the price

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cap regulatory structure established following passage of the Postal Accountability and Enhancement Act in 2006, and explained the played by service standards in this and other price cap regulatory regimes. While acknowledging the severity of the Postal Service's fiscal problems, He argued that under price cap regulation relaxation of mandated service standards was conceptually equivalent to relaxation of the price cap constraint on rates.

- ◆ Dr. Neels provided expert testimony on behalf of a global provider of courier services in an investor dispute filed under an international free trade agreement. This dispute alleged that the respondent national government had granted the national postal operator monopoly control over basic postal services and other special privileges, and then allowed the postal operator to compete with private entities in the competitive courier service market without exercising adequate regulatory oversight to assure that the postal operator complied with the equal treatment provisions of the free trade agreement to which the national government was a signatory. Dr. Neels' work involved a thorough review of the postal operator's pricing and cost allocation procedures. His testimony also defined what equal treatment meant in the context of courier services, and analyzed evidence indicating the extent to which the postal operator was complying with its equal treatment obligations.
- ◆ Following the passage of the Postal Accountability and Enhancement Act (PAEA) on December 20, 2006 Dr. Neels was retained by UPS to provide regulatory consultation and strategic advice regarding the implementation of its provisions. The PAEA substantially changed the regulatory structure under which the U.S. Postal Service operated, dismantling the system of cost-based regulation that had been in place since 1970, and establishing a much looser regulatory framework intended to provide the Postal Service with greater pricing freedom while at the same time maintaining safeguards to protect users of monopoly services and prevent cross-subsidization of competitive services. The Postal Regulatory Commission (formerly the Postal Rate Commission) was charged by the PAEA with developing and maintaining regulations for a modern system of rate regulation, preventing cross-subsidization or other anticompetitive postal practices, promoting transparency and accountability, and adjudicating complaints. During the implementation process the Postal Regulatory Commission conducted hearings, sought comments, and issued a variety of regulations and orders regarding pricing practices, data reporting, administrative procedures and other matters. Dr. Neels assisted UPS in preparing comments, reviewing proposed regulations, and understanding the implications of the new regulatory process for the structure and operation of the product markets within which UPS and the Postal Service competed.
- ◆ In R2006, the last rate case litigated before the Postal Rate Commission before passage of the Postal Accountability and Enhancement Act fundamentally changed the regulatory structure to which the U.S. Postal Service was subject, Dr. Neels again offered testimony on behalf of UPS on issues relating to the structure and variability of mail processing and purchased transportation costs.

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- ◆ In testimony before the U.S. Postal Rate Commission, Dr. Neels offered expert testimony analyzing the procedures used by the U.S. Postal Service to measure the transportation costs associated with its various products. His analysis addressed a wide range of issues, including the Service's use of its dedicated air network for transportation of expedited products, fieldwork procedures used to collect data on composition of the mail stream at different points in the rail network, potential biases in the assignment of transportation costs to products, and flaws in econometric analyses of transportation cost variability introduced by other witnesses in the proceeding.
- ◆ For an express package delivery carrier intervening in a rate case before the U.S. Postal Rate Commission, Dr. Neels conducted a critical review of econometric studies of cost variability introduced into evidence by a witness testifying on behalf of the U.S. Postal Service. He identified a number of serious conceptual and methodological flaws in this analysis, and demonstrated that the substantive conclusions of the analysis were sensitive to relatively minor change in its design. On the basis of his testimony the Commission rejected the arguments of the Postal Service in the Commission's final ruling.

Airline Industry

- ◆ On behalf of a major air carrier Dr. Neels assisted an academic expert in drafting his report and preparing for trial testimony in an antitrust dispute involving global distribution systems for airline, hotel and rental care bookings.
- ◆ For a major U.S. network air carrier Dr. Neels was a key member of a team of consultants charged with the development of an operations research strategy aimed at improving the carrier's performance and competitive standing across a broad range of areas of operation, including financial planning, scheduling, crew management, maintenance, flight operations, air cargo sales, marketing, reservations and distribution. This engagement involved extensive onsite interviews with numerous operating personnel at the carrier's headquarters. It identified a lengthy list of investment opportunities involving the application of a variety of advanced decision support tools.
- ◆ For a major international air carrier accused of monopoly leveraging and attempted monopolization of a key market, Dr. Neels prepared a report analyzing the carrier's use of corporate discounts and travel agent override commissions, and rebutting arguments that these agreements could be construed as exclusive dealing.
- ◆ For a major U.S. air carrier, Dr. Neels conducted an extensive empirical investigation of the responses of travel agents to carriers' incentive and override programs. Using the results of this investigation, he evaluated his client's sales force management and travel agent incentive strategies to identify specific ways in which redesign and or retargeting could increase their net revenue yields.

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- ◆ Working on behalf of a major air carrier in an antitrust case involving allegations of predatory pricing, Dr. Neels worked directly with the lead litigator for the case to develop a strategy to guide discovery. Subsequently, he conducted a variety of econometric analyses measuring the extent to which plaintiffs were harmed by the alleged predation.
- ◆ For a consortium of major U.S. air carriers accused of engaging in collusion and price fixing, Dr. Neels directed a major economic analysis of industry pricing strategy and pricing dynamics. Drawing upon detailed data on daily fare changes, Dr. Neels prepared testimony and exhibits demonstrating the difficulty of engaging in coordinated pricing behavior.
- ◆ In an antitrust dispute in the airline industry, Dr. Neels was retained by the defendant to critique and rebut damage calculations prepared by experts for plaintiffs. Dr. Neels conducted a detailed analysis of the assumptions underlying plaintiff estimates of lost profits, documenting numerous instances in which specific assumptions were contradicted by industry experience or by business plans prepared by the plaintiff prior to litigation. He showed that correcting these errors resulted in dramatic reductions in estimates of plaintiff damages. The case was eventually dismissed without an award of damages.
- ◆ Dr. Neels assisted in the preparation of statistical exhibits and an expert affidavit for submission by a major U.S. carrier in a rulemaking proceeding regarding airline computerized reservation systems conducted by the U.S. Department of Transportation.
- ◆ To support expert testimony in an antitrust case between two major U.S. air carriers, Dr. Neels developed and estimated a set of statistical models for estimating the effects of GDS display bias on the booking patterns and revenues of the affected airlines. As part of this effort Dr. Neels conducted an extensive analysis of the histories of the carriers in questions and of the development of these computerized systems as the primary channel of distribution for airline tickets. He also prepared damage estimates, assisted in the deposition of opposing expert witness, prepared trial exhibits and advised counsel on cross-examination strategy during the course of the trial.

Airport and Airway System

- ◆ Dr. Neels conducted a detailed analysis of the potential benefits of space-based Automatic dependent surveillance—broadcast (ADS-B). This analysis considered a broad range of potential impacts of this new technology, including fuel and other operating costs savings from the enhanced ability of trans-oceanic flights to follow optimal flight trajectories, reductions in delays at the boundaries between procedure and radar controlled airspaces, faster and more precise responses to oceanic air disasters, and more precise and complete coverage of remote terrestrial regions.
- ◆ For the International Air Transport Association, Dr. Neels conducted an analysis and critique of a proposed change in the structure of air traffic control user charges levied on foreign carriers entering the U.S. and overflying its territory. He pointed out a number of serious flaws in the

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empirical analysis that formed the basis for the new system of charges. Implementation of the new charges was halted by a federal judge.

- ◆ Dr. Neels played a critical role in a project for the Air Transport Association (ATA) of the United States to evaluate proposals for reforming the nation's air traffic control (ATC) system and to develop an effective financial and organizational structure for a reformed ATC. The plan, developed under extremely tight deadlines, required an assessment of ATC technological capabilities, estimation of the cost effects of ATC on the airline industry, an economic analysis of current and proposed ATC organizational forms and detailed financial assessment of proposed ATC entities. Dr. Neels presented his analysis and proposal to airline chief executive officers at a meeting of the ATA board.
- ◆ For the public authority responsible for the operation of one of the largest international gateway airports in the country, Dr. Neels conducted a comprehensive review of sources of information on air cargo movements. Based upon the results of this review, he worked with authority staff to devise a strategy for monitoring trends in shipments by ultimate origin and destination, commodity, carrier and type of service, and for factoring this information into an improved process for planning and executing air cargo facility improvements.
- ◆ For the operator of a major U.S. hub airport, Dr. Neels developed a series of forecasting models for use in evaluating likely passenger responses to the introduction of new types of ground access services.
- ◆ For the government of a Mexican province, Dr. Neels developed a framework for use in evaluating proposals for new airport development.
- ◆ For a conference sponsored by the National Academy of Sciences, Dr. Neels analyzed the policy issues raised by proposals for using pricing to manage demand and reduce delays at major airports. His analysis used standard antitrust tools to assess the extent of concentration in the market for airport services, and evaluated the potential for anticompetitive behavior in that market.
- ◆ To support the development of an airport system plan for a major metropolitan area, Dr. Neels prepared long-range activity forecasts for air carriers, regional airlines and general aviation.
- ◆ For an international gateway airport, he evaluated the impacts and effectiveness of a wide range of strategies for reducing delays. The policies considered included regulatory constraints on aircraft size, diversion of service to adjacent airports, a variety of pricing and slot allocation mechanisms, and expansion of facility capacity.

Aerospace Manufacturing

- ◆ For a foreign manufacturer of high-end business jet aircraft Dr. Neels offered testimony on the structure of the market within which these aircraft are sold and the relationship between this market and the market aftermarket retrofits and modifications. His testimony examined the turnover of the existing fleet of high end business jet aircraft, trends over time in resale values,

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the relationship between new aircraft sales and trade-ins of previously owned aircraft, and the factors influencing the commercial success of aftermarket modifications under FAA supplemental types certificates.

- ◆ For a consortium of aerospace manufacturers, Dr. Neels examined and evaluated the economic, financial and policy arguments for including manufacturers as members of government sponsored insurance against war and terrorism risks. His analysis examined the nature of the risks in question, the state of the commercial market for insurance against them, the realities of multi-party tort litigation in settings where the parties enjoy dramatically different levels of insurance coverage, and the likely long-term economic impacts if aerospace manufacturers were because of the shut down of the commercial insurance market, forced involuntarily to self-insure against these risks.
- ◆ For a major manufacturer of business jet aircraft accused of monopoly leveraging and attempted monopolization Dr. Neels conducted an analysis of the structure of the business jet aircraft market, evaluating the extent to which availability of comparable models from other manufacturers constrained the ability of the defendant in the dispute to exercise market power.
- ◆ For a U.S. based manufacturer of business aircraft, Dr. Neels quantified the damages resulting from significant defects in a major subcontractor-supplied aircraft component. These defects had resulted in a number of plane crashes and the eventual grounding of a significant portion of the manufacturer's fleet. Dr. Neels developed a sophisticated econometric model that controlled for the effects of a number of market-related background factors, and isolated the effects of the component defects on sales, revenues and profits.
- ◆ For a manufacturer of high end business jet aircraft involved in a dispute over the closure of a manufacturing plant, Dr. Neels offered expert testimony on the status of the business jet aircraft market at the time of the closure and its effects on new orders, backlog and revenue for the manufacturer. His analysis focused in particular on the effects on the business jet aircraft market of the economic downturn that began in 2001 and the events on September 11, 2001. In response to testimony offered by opposing experts, he also analyzed the decision making process that led to closure of the plant, the options open to management, and the economic justifications for closing the plant.

Automotive Industry

- ◆ For a group of automobile dealers, he conducted an econometric analysis to quantify the extent to which these dealers had suffered economic injury as a result of a scheme in which executives of the auto manufacturer accepted bribes from a subset of dealers in exchange for providing them with extra allotments of highly profitable car models. The settlement of this litigation awarded a payment of several hundred million dollars to the non-bribe paying dealers.
- ◆ For a major auto manufacturer contemplating litigation over an alleged theft of trade secrets, he developed a system of economic forecasting models to calculate the effects of the theft of sales of

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the company's products in a number of major international markets. Results of this confidential investigation played a key role in the company's subsequent decision to seek redress through the courts.

- ◆ For a group of automobile dealers engaged in a dispute with a distributor, Dr. Neels offered expert testimony analyzing the new auto allocation procedures used by the distributor, the distributor's policies regarding accessorization of new vehicles, and their economic effects of individual dealers. This work involved extensive econometric modeling of the dynamics of dealer inventories and the determinants of time to sale for individual vehicles.
- ◆ For a consortium of U.S., European and Japanese auto manufacturers and related firms, Dr. Neels played a key role in a major investigation of long-term trends in mobility. This study was worldwide in scope, addressing urban, rural and intercity passenger and freight transportation in both the developed and the developing world. Its particular focus was on the sustainability of the current transportation system, and the extent to which exhaustion of fossil fuels, environmental constraints, infrastructure shortages or institutional barriers were likely to constrain mobility over the next several decades.

Other Project Experience

- ◆ For a public sector toll road development and operation authority Dr. Neels conducted a comprehensive cost benefit analysis of a proposed toll road extension, taking into account construction, maintenance and long term repair and reconstruction costs, value of travel time savings, value of lives saved and injuries avoided, and reductions in auto emissions. He demonstrated that the proposed extension offered significant net social benefits as a standalone project, regardless of whether later phases of the overall project were eventually completed.
- ◆ For an operator of vehicle and passenger ferry services to offshore islands, Dr. Neels conducted a detailed analysis of fares, costs, market structure, the extent to which particular services are subsidized, the structure of the market for ferry services, and the likely effects of changes in conditions of entry.
- ◆ For a major U.S. manufacturer that had been the target of industrial espionage and the organized theft of technology and other trade secrets, Dr. Neels offered testimony involving the stolen technology and, using a reasonable royalties approach, the damages suffered by the U.S. manufacturer as a result of the theft. At the conclusion of a jury trial in the United States, the manufacturer received a substantial damage award.
- ◆ For the U.S. Department of Energy, Dr. Neels conducted an extensive investigation of the technological, institutional and economic factors influencing the demand for residential heating fuels.

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- ◆ For a Gas Research Institute study of natural gas usage in the steel industry, Dr. Neels provided consultation on statistical issues and worked closely with a team of analysts examining the economics of fuel substitution.
- ◆ Dr. Neels directed the team of economists responsible for conduct of the damages study for plaintiff in a major patent infringement lawsuit in the consumer products industry. His work included development of econometric models to forecast product sales in eight major world markets, analysis of the effects of incremental changes in sales volumes on company profits, review of historical pricing strategies and calculation of economic damages for a wide range of “but-for” pricing and product introduction strategies. He and his team also played a key role in the analysis of the case put forth by the opposing side and in the development of cross-examination strategies for opposing expert witnesses. He was designated as an expert witness in this matter, but was not called upon to testify.
- ◆ As leader of a project funded jointly by the Ford Foundation, the U.S. Department of Housing and Urban Development and a consortium of local corporations, Dr. Neels directed a year-long study by the Rand Corporation of strategies for privatizing municipal services in Saint Paul, Minnesota. A major component of this project was a detailed analysis of the incentives created by different financing mechanisms, organizational structures and personnel management systems. Findings of the study were published in a major report entitled *The Entrepreneurial City*.
- ◆ Dr. Neels played a major role in the preparation of expert testimony on behalf of a group of major domestic oil companies accused of conspiring to depress the prices paid to producers of a major input to tertiary oil recovery projects. This testimony focused on an examination of purchase contracts involving the defendants to establish market prices for the input in question over the alleged damage period.
- ◆ For the New York State Science and Technology Foundation, Dr. Neels participated in a project to facilitate the transfer to civilian firms and the commercial exploitation of photonics technology developed for military applications at a research center established at a major New York State military installation. This project included an assessment of the commercial value of the technology, the identification of firms in the vicinity of the research center with the research focus and capabilities to absorb the technology, and the design of institutional mechanisms for facilitating and supporting technology transfer.

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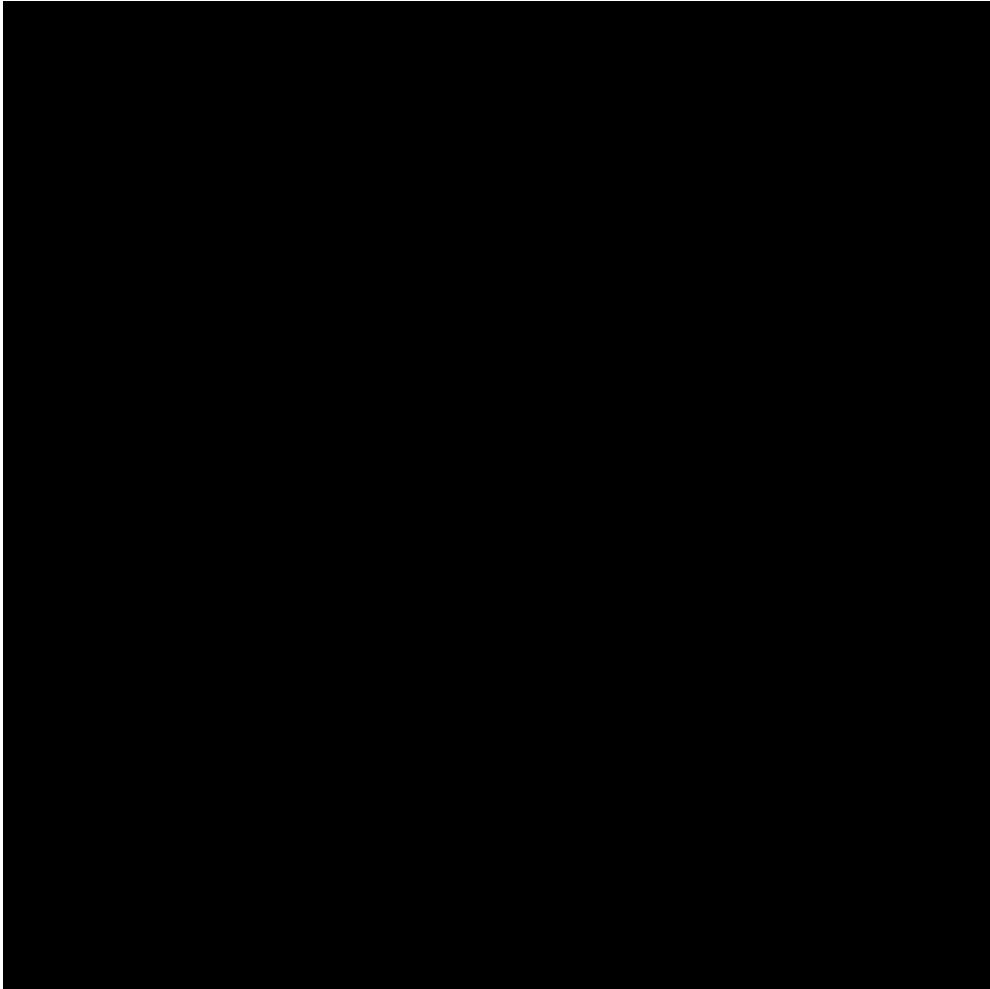
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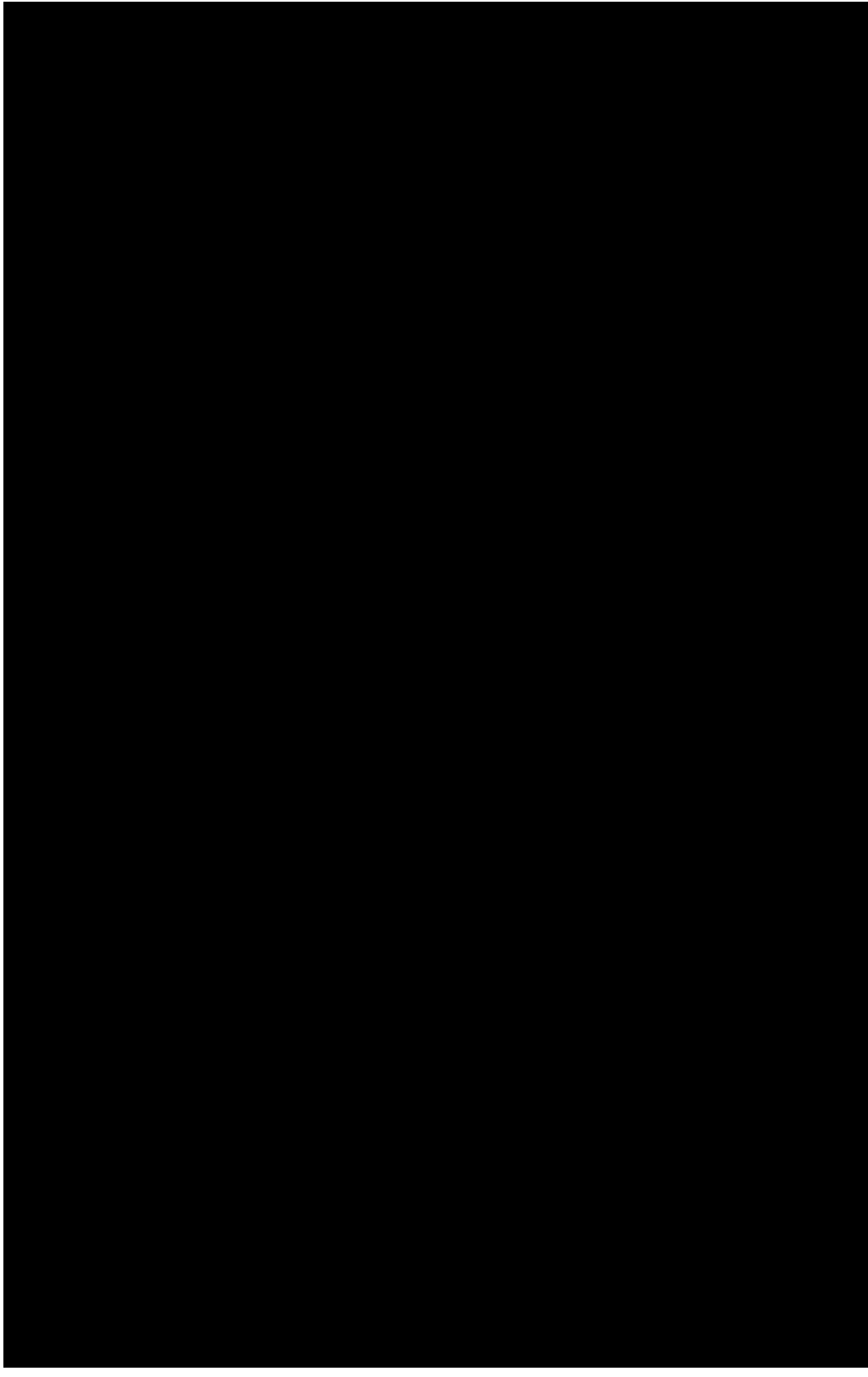
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January 26, 2021

APPENDIX B – SHIPPERS LOCATED ON THE ROSEBLUFF LEAD[[



APPENDIX C – OVERVIEW OF BRATTLE NETWORK MODEL

I. Overview Of Network Model

The traffic routings upon which my calculations are based were carried out using The Brattle Group's rail network model. This model was developed from the National Transportation Atlas Database (NTAD) maintained by the federal Bureau of Transportation Statistics. This database includes a geocoded database of all rail lines in the United States. Information contained in the database identifies for each rail segment in the database which railroad or railroads own the facility, and which railroads, if any, possess trackage rights allowing them to operate over that facility. Brattle staff merged the raw NTAD data with information drawn from a variety of other sources. The resulting network representation includes location specific information regarding ownership, trackage rights, number of tracks, measures of traffic density, and type of signaling.

II. Assignment Details

The Brattle network model routes single railroad movements³² using an implementation of the Dijkstra shortest path algorithm.³³ The routing algorithm of the model selects the

³² Such a movement could be either a full origin to destination movement between two points on the network of a single railroad or, in the case of multi-railroad movements with interchanges, the portion of the overall movement handled by one railroad. In a two railroad movement, for example, such a movement could be either from the origin point to the interchange junction, or from the interchange junction to the final destination.

³³ Dijkstra, E. W. (1959), "A note on two problems in connection with graphs." *Numerische Mathematik*, 1(1), 269–271.

minimum “impedance” route for each movement. The impedance of a specific network link is equal to the length of that link in miles multiplied by a term that applied a weight to the distance based on the characteristics of the link. These characteristics include the number of tracks at this location, the type of signaling equipment present, and whether the link is owned by a Class I railroad. The parameters that define the relative weight given to each attribute in calculating impedance were selected using a nonlinear search optimization procedure that identified the parameter values that minimized the sum of squared distances between distances generated by the model for movements in the Waybill Sample, and the distances for those same movements recorded in the Waybill Sample.

The model routes single railroad movements over subnetworks of the overall U.S. railroad network that include all track owned by the railroad in question, as well as all track over which that railroad holds traffic rights.³⁴ The subnetwork also includes track owned by short line railroads that interchange exclusively with the railroad in question, as well as portions of other short line railroads that appear, according to the information contained in the waybill sample, and gleaned from a variety of internet sources to have haulage agreements with the railroad whose traffic is being routed.

³⁴ Some of these movements either originated or terminated outside the United States. To handle such instances, Brattle staff created a database of railroad border crossings based on a variety of internet sources. The rail network model identifies the most likely border crossing point based on the location of the U.S. end of the movement, the railroad carrying the movement, and the waybill sample’s identification of the U.S. states through which the movement traveled.

III. Results of assigning 2017 and 2018 waybill samples

The waybill sample provided evidence regarding the probable existence of haulage agreements. In particular, there are numerous situations within the waybill sample in which a Class I railroad is recoded as having either originated or terminated a shipment at a station (defined in terms of a Standard Point Location Code, or “SPLC”) which, according to NTAD, was not located on that railroad’s network. A few dozen locations accounted for a majority of the apparently anomalous situations. In such cases, internet research generally disclosed the existence of an access agreement of some type between the short line and Class I railroads in question. It also disclosed some agreements between Class I railroads³⁵ and a few instances in which the NTAD ownership data were out of date.³⁶ Brattle staff updated the information on ownership and trackage rights obtained from NTAD to reflect these agreements.

Because access agreements of this type change over time and are not always well-documented the model includes an automated trackage rights routine used in situations in which the waybill sample indicates that a railroad is either originating or terminating a shipment at a station which, according to the network database that railroad does not connect to. If the point

³⁵ For example, CSXT and BNSF have entered into an agreement in which CSXT serves as a haulage carrier for BNSF in order to allow the latter railroad to carry intermodal shipments on a single carrier basis from the west coast to Atlanta. See Gallagher, John. “BNSF, CSX sign intermodal pact.” *JOC.com*, 22 October 2006, https://www.joc.com/rail-intermodal/bnsf-csx-sign-intermodal-pact_20061022.html.

³⁶ For example, the NTAD did not reflect the fact that KCS had sold a partial interest in the Meridian Speedway to NS. (“KCS and NS close on Meridian Speedway joint venture.” KCS and NS press release, 1 May 2006, <https://www.ble-t.org/pr/news/headline.asp?id=16057>), or that NS had purchased the lines of the Delaware and Hudson from CP (“Norfolk Southern completes acquisition of Delaware & Hudson South Line - positive news for rail shippers and communities.” NS press release, 18 September 2015, <http://www.nscorp.com/content/nscorp/en/news/norfolk-southerncompletesacquisitionofdelawarehudsonsouthlinepos.html>).

on the network of the railroad carrying the shipment that is closest to the off-network station is located within 5 kilometers of that station, this routine will find the shortest path from the carrying railroad's closest point to the off-network station, regardless of the ownership status of the track traversed by this path, and assume for purposes of routing the specific shipment that the carrying railroad was able to utilize this path.

The network model was able to route successfully 93 percent of total movements in the 2017 and 2018 waybill samples.³⁷ The routed mileages produced by the model were very close to the routed miles reported for those same movements in the waybill sample. The correlation coefficient between waybill sample mileage and associated network mileage is 0.975.³⁸

³⁷ This figure does not include movements that took place entirely in Canada or Mexico, or movements that started and ended at the same location according to the Waybill Sample. These movements were dropped in a pre-processing step.

³⁸ This figure excludes certain routes for which the waybill mileage and the network mileage are not directly comparable, including movements partially outside the United States, for which a routing was only generated for the U.S. portion.

PUBLIC VERSION

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

FD 32760 (SUB-NO. 46)

**BNSF RAILWAY COMPANY
-- TERMINAL TRACKAGE RIGHTS APPLICATION --
THE KANSAS CITY SOUTHERN RAILWAY COMPANY AND
UNION PACIFIC RAILROAD COMPANY**

**KCS'S OPENING STATEMENT AND EVIDENCE ON COMPENSATION
CONCERNING BNSF'S USE OF THE ROSEBLUFF LEAD**

EXHIBIT B

VERIFIED STATEMENT OF PROFESSOR JULIE M. CAREY

PUBLIC VERSION
BEFORE THE
SURFACE TRANSPORTATION BOARD

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VERIFIED STATEMENT OF JULIE M. CAREY

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PUBLIC VERSION

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

FD 32760 (SUB-NO. 46)

**BNSF RAILWAY COMPANY
– TERMINAL TRACKAGE RIGHTS APPLICATION –
THE KANSAS CITY SOUTHERN RAILWAY COMPANY AND
UNION PACIFIC RAILROAD COMPANY**

**KCS’S OPENING STATEMENT AND EVIDENCE ON COMPENSATION
CONCERNING BNSF’S USE OF THE ROSEBLUFF LEAD**

VERIFIED STATEMENT OF JULIE M. CAREY

I. INTRODUCTION AND SUMMARY CONCLUSIONS

A. Introduction and Background to Expert

My name is Julie M. Carey. I am an economist and Managing Director with National Economic Research Associates, Inc. (“NERA”). I routinely provide expert evidence before regulatory agencies, including the Surface Transportation Board (“STB” or the “Board”), as well as in commercial disputes before arbitrators and courts. I have over 20 years of experience addressing economic issues in the energy and transportation sectors. I have worked on numerous rate reasonableness disputes before the STB by providing economic evidence regarding stand-alone costs and future expectations of volume, revenue, and rates. I also have experience conducting economic analysis within disputes regarding haulage or trackage agreements. My work is routinely focused on economic analysis at the intersection of competition and regulation across energy and transportation industries. Through my consultancy work, I have substantial experience providing consulting and testifying expert services involving competition, negotiated and market-based rates, economic damages, valuation analyses, and other economic analyses within regulatory and commercial disputes associated with transportation and other regulated and unregulated industries.

In addition to my economic consultancy practice, I am an Adjunct Professor at Georgetown University, where I teach energy economics and policy in the graduate economics and political economics program, which includes instruction on the economics and regulation of railroad transportation. My Curriculum Vitae is attached as Exhibit 1.

I was retained by Baker and Miller PLLC on behalf of The Kansas City Southern Railway Company (“KCS”) to provide an opinion on the compensation that should be paid by BNSF Railway Company (“BNSF”) for terminal trackage rights over the Rosebluff Lead to provide direct access for movements to/from LyondellBasell’s (“Lyondell”) facilities in West Lake Charles, LA.¹ I discuss the economic implications of inadequate compensation to KCS as well as revenue adequacy considerations. I also discuss the appropriate economic framework to ensure the economically appropriate compensation to KCS for BNSF’s use of the Rosebluff Lead to access Lyondell.

B. Summary of Conclusions

In this case, the STB seeks to address the appropriate fee to facilitate BNSF’s direct access to Lyondell over the Rosebluff Lead, which is served by three railroad competitors. The competitive dynamic and economic circumstances in the Lake Charles area are far different than those facing a customer who is served by one railroad without good transportation alternatives—circumstances under which the STB typically evaluates rate reasonableness disputes. The competitive dynamic in the Lake Charles area is also distinguished from a trackage rights case in which one railroad is given access over another single railroad’s trackage. The Rosebluff Lead is co-owned by Union Pacific Railroad Company (“UP”) and KCS (equal partners with 50% ownership interests). UP sought and the Board granted BNSF access to customers in the Lake Charles area in the UP/SP merger (SP is “Southern Pacific”) which was granted as a concession to allay competitive concerns. As a result of that agreement, UP derived substantial merger-related benefits throughout its newly expanded network system and BNSF derived substantial benefits through access to the Lake Charles and other market areas. From the government-mandated BNSF access that was beyond KCS’s control, KCS not only derived no benefit (that

¹ I also provided a verified statement on February 4, 2019 on behalf of KCS in FD 32760 (Sub-No. 46) regarding the compensation that should be paid by BNSF for terminal trackage rights over the Rosebluff lead to provide direct access to Lyondell.

both UP and BNSF achieved), but rather KCS has faced the unavoidable diminution in the value of its 50% owned trackage of the Rosebluff Lead in Lake Charles (as I discuss further in Section III and V).

With the unique circumstances, in this case, I recommend that the STB ensure that KCS does not receive a differentially lower fee² for BNSF's direct access to Lyondell than KCS could receive through competitive negotiations in this case, through a market-based access fee estimated based on competitively negotiated market-based reciprocal switching rates (adjusted to remove the switching cost).³

Competitive market forces have been in play for over two decades in the Lake Charles area where BNSF has an artificially low non-market rate for reciprocal switched access via UP and now seeks direct access to Lyondell. Such increased competitive options are well recognized by economists to reduce railroad rates and revenues and thereby reduce KCS's past and prospective revenues. This lessens KCS's ability to compete in the market and impedes its ability to realize the full value of the asset it owns (i.e. it has resulted in a diminution of KCS trackage value). I discuss in Section III. and Section IV.A.

Further, the addition of a strong BNSF competitor has and will continue to diminish KCS's ability to contribute to the rest of its network due to its reduced revenue adequacy (which is well below the railroad industry levels and much lower than BNSF (or UP)). As I discuss in Section II, I recommend that the revenue adequacy requirement of the STB policy should be given due consideration in this case because KCS is the only revenue inadequate railroad competitor in the Lake Charles area (i.e. contribution that BNSF receives as a result of Lake Charles customers benefits the rest of its network instead of the KCS network.)

Further as discussed in Section IV.B and IV.C below, an artificially low non-market trackage rate for more than two decades has caused irreparable harm to KCS and will lead to an artificially low and inappropriate rate under various methodological approaches to the SSW

² The market-based access fee represents the haulage rate that I calculated based on market-based reciprocal switching rates for which BNSF should compensate KCS for direct access to Lyondell via its owned trackage in Lake Charles.

³ As discussed further in Section V. A, all switching and other variables costs reported in the Uniform Rail Costing System ("URCS") for the BNSF movement to Zone 2 where Lyondell operates are included.

Compensation calculation (CE or RCNLD) that will continue to economically harm impact KCS in the future.⁴

Reliance on the market-based access fee calculated based on competitively negotiated market-based reciprocal switch rates comparable to Lake Charles area (adjusted to remove the switching cost) is consistent with the STB's longstanding policies. The Board's policies have fostered robust and sustainable railroad networks through reliance on the invisible hand of competitive market forces and differential pricing for market-specific circumstances to yield commercial market-based outcomes to the maximum extent possible, with protections to individual shippers where insufficient competition exists to do so. Here, there are real-world competitive market conditions and negotiated market-based reciprocal switching rates between willing buyers and sellers that can and should be relied upon to set an appropriate market-based access fee. These real-world commercial negotiations reflect fair market value outcomes where parties share in the contribution as BNSF and KCS would have achieved but for the forced access.⁵ It is superior to the hypothetical estimated rate—a rate that is guaranteed to be too low as it is the result of heightened competition over the past two decades which has reduced rates and revenues from the imposition of a regulatorily determined rate in the first instance. Only with an appropriate current market-based access fee will KCS be afforded the appropriate contribution to its network that is consistent with regulatory requirements to ensure its revenue adequacy, rather than transfer more contribution to BNSF to support its network at the expense of KCS's network.

The market-based access fee I calculate below (in Section V.A) for BNSF to pay KCS for direct access to Lyondell is based on the nearly 2,000 real-world market-based reciprocal switching rates that are comparable to Lake Charles (= adjusted to remove the switching cost). As such, it is an appropriate fee based on an efficient and effective competitive market outcome to charge BNSF to directly access Lyondell. Further, a fee based on a competitive market outcome best represents the compensation and sharing of contribution that KCS would have negotiated with BNSF absent the forced access. Specifically, as my analysis below shows, the

⁴ I discuss numerous reasons the SSW methodologies will understate the appropriate rate. Dr. Kevin Neels Verified Statement presents the SSW rate (based on CE) for this case.

⁵ Here I generally use the term contribution to describe revenue less variable cost. It does not account for fixed costs or profits.

real-world market-based reciprocal switching rates for similar markets observe an average customer rate equal to \$490 /car, which is reduced by an estimated switching cost for Lake Charles movements to Lyondell equal to [[REDACTED]]⁶ car for Zone 2 (with Lyondell) to derive the appropriate market-based access fee for BNSF to directly access Lyondell equal to [[REDACTED]] car for Zone 2 (Lyondell).⁷

This approach to setting an appropriate market-based access fee is reaffirmed in numerous ways. First, my proposed market-based access fee is conservative as compared to an alternative fee equal to [[REDACTED]]car which applies a revenue adequacy-based markup as reported in KCS’s historical revenue shortfall allocation method (“RSAM”) of 384% for the 2016-2019 period to BNSF’s costs to operate over the Rosebluff Lead. In addition, my market-based access fee is supported by an analysis of robust [[REDACTED]] which confirm that the fee represents a reasonable sharing of the contribution to the benefit of both KCS and BNSF’s network (with due consideration to KCS revenue adequacy requirements). [[REDACTED]]

For these reasons, my overall recommendation to the STB is that a market-based access fee should be used to determine the fee that BNSF should pay KCS for use of the Rosebluff Lead and direct access to Lyondell. The real-world market-based access fee gives due consideration to the priority of efficient competitive market outcomes and revenue adequacy-based requirements, consistent with the STB policy imperatives. This approach of shared profits between BNSF and KCS based on negotiated reciprocal switching rates is superior to the imposition of a regulatorily determined rate estimate for this specific case. Only with such an appropriate market-based access fee that shares contribution between BNSF and KCS (as would have occurred absent forced access) will further erosion of the value to KCS’s trackage cease.

⁶ See Section V.A and Carey Opening WP “Switch Cost Summary Statistics BNSF 2018.xls.”

⁷ As discussed below, the market-based access fee is conservative (i.e. lower than) a fee calculated based on KCS’s RSAM applied to BNSF cost to move Lyondell traffic over the Rosebluff Lead.

II. REGULATORY REQUIREMENTS TO ENSURE REVENUE ADEQUACY ARE AN IMPORTANT CONSIDERATION IN SETTING AN APPROPRIATE MARKET-BASED ACCESS FEE IN THIS CASE

A. Revenue Adequacy is Fundamental to Railroad Regulatory Regime

Statutory regulatory requirements have long recognized the importance of ensuring the revenue adequacy of each railroad.⁸ The Staggers Act (and subsequent regulatory decisions) set forth a regulatory framework to enable railroad carriers to earn adequate revenues to provide a “safe and efficient rail transportation system”⁹ coupled with a competitive framework of checks and balances to ensure potential oversight of rates, only where necessary. The competitive framework guards against and attempts to quickly rectify any unjust and unreasonable rate to a customer served by one railroad that lacks effective competition from good transportation alternatives, and where such railroad is deemed market dominant.¹⁰ As such, railroad regulation is designed to best ensure that carriers earn adequate revenues to provide safe and efficient service and to safeguard that rates are reasonable when a railroad lacks effective competition.

Class 1 railroads have emphasized the importance of regulatory requirements to ensure the ability of railroads to meet revenue adequacy on many occasions and in a wide variety of circumstances. For example, as noted below, within proposed rulemakings and other regulatory settings, Class 1 railroads emphasized the importance of revenue adequacy considerations and prioritizing the competitive market framework and market-based outcomes, and the importance of avoiding the imposition of regulatory outcomes unless when necessary.

In the context of proposed rule changes to the methodology and approach used by the Board to evaluate the reasonableness of railroad rates, railroads have pointed to financial considerations of the business such as the “long term health of the industry” and overall revenue adequacy as important considerations. Even in proceedings considering reciprocal switching rate policies in which Class 1 railroads generally agree that these reciprocal switching rates represent

⁸ 49 U.S.C. § 10704(a)(2).

⁹ The Railroad Transportation Policy (“RTP”) at 49 U.S.C. § 10101(3).

¹⁰ Staggers Rail Act of 1980, Public Law 96-448, §101.

a market-based outcome, a railroad's ability to attain revenue adequacy is identified as an important factor in any decision-making regarding potential revisions to the regulatory construct.

"In recent years a variety of rail shippers and shipper associations have pursued the goal of reducing rail rates in a number of contexts, and no doubt will continue that pursuit in this proceeding and the Board's Cost of Capital (Ex Parte 664 (Sub-No. 2)) proceeding. As demonstrated in the ongoing Ex Parte 724 proceeding regarding U.S. Rail Service Issues, despite wishing to reduce railroad revenues, shippers expect that railroads will undertake the investment necessary to provide excellent service.⁴ But it is illogical for shippers to demand both artificial rate reductions and continued or enhanced reinvestment necessary to maintain or upgrade service. **In considering what regulatory framework might flow from a determination that a railroad is long term revenue adequate, the Board must apply common sense to see that artificial rate reductions or caps will necessarily have an impact on a railroad's ability to make the investments required to meet shippers' high service expectations.**"¹¹ (emphasis added)

"...[A] railroad's achievement in earning a particular level of revenue should not be a basis for constraining rates. Competitive market forces have fostered unprecedented private investment and service innovations in the rail industry since passage of the Staggers Act. These investments and innovations have produced tremendous benefits for shippers, and they are improving the financial condition of railroads, including Union Pacific. **We urge the Board to allow competitive market forces to continue to drive railroad rate-setting, investments, and innovation. The Board should not impede railroads' market-based responses to growing and changing demands for rail transportation by adopting any rate constraint designed to artificially limit railroad returns to an amount deemed to be "adequate."**"¹² (emphasis added)

"The Board should not adopt its proposed rules. The proposal is simply an attempt to regulate rates outside of the rate reasonableness process by artificially creating rail-to-rail competition. [...] Finally and critically, any final rules should adopt an access pricing methodology that promotes the RTP. **The two methodologies proposed by the Board do not adequately consider a railroad's ability to attain revenue adequacy.** Therefore, the Board should incorporate ECP into its access price methodology. **Failure to do so will drive carriers further away from revenue adequacy and is likely unconstitutional.**"¹³ (emphasis added)

"BNSF respectfully submits that economically sound regulation of the rail industry cannot be based on the subjective belief of a small group of shippers that the rail rates they pay are unjustifiably high. It is inappropriate to evaluate the validity of the Board's rate reasonableness methodologies based on the extent to

¹¹ Railroad Revenue Adequacy, EP 722 (BNSF Comments Filed September 13, 2013).

¹² Railroad Revenue Adequacy, EP 722 (UP Comments Filed September 5, 2013).

¹³ Reciprocal Switching, EP 711 (KCS Comments Filed January 13, 2017).

which they lead to shipper victories in rate cases or result in prescriptions at rate levels significantly below the challenged rate. Rational rate regulation can only be based on an objective test for whether challenged rates are unreasonably high. The Constrained Market Pricing ("CMP") principles adopted by the ICC in *Coal Rate Guidelines*¹⁴, and the SAC test developed to implement those principles, provide a sound foundation for sensible rate regulation. The Board must continue to preserve these principles. There is no reason for the Board to give serious consideration to proposals that disregard the fundamentals of railroad economics and that are driven purely by a desire to lower rail rates. **BNSF and its many shippers who have not submitted comments in this proceeding would be poorly served by a reconfigured regulatory regime designed to provide a short-term windfall to a small group of shippers at the expense the long-term health of the industry.**¹⁵ (emphasis added)

B. The STB has routinely concluded that BNSF (and UP) are revenue adequate, while KCS is not

The STB's annual determination of railroad revenue adequacy is performed based on required statutes in accordance with well-established standards and procedures as documented in the annual determination of railroad revenue adequacy decisions by the STB.¹⁶ Under its required regulation, "...[a] railroad is considered revenue adequate under 49 U.S.C. § 10704(a) if it achieves a rate of return on net investment (ROI) equal to at least the current cost of capital for the railroad industry."¹⁷

BNSF has observed revenue adequacy in eight (8) out of the last nine (9) years, with the sole exception in 2018 which very closely approximated revenue adequacy. In its most recent revenue adequacy decision for the year 2019, the STB concluded that BNSF's ROI was well in excess of the industry cost of capital and well above KCS's.¹⁸ Specifically, BNSF observed a 12.04% ROI, nearly 30% higher than the industry cost of capital 9.34%¹⁹ and nearly double (i.e. twice as large as) KCS's 6.20% ROI.²⁰ A similar conclusion can be drawn comparing UP to the

¹⁴ *Coal Rate Guidelines, Nationwide*, 1 I.C.C. 2d 520 (1985), aff'd sub nom. Consolidated Rail Corp. v. United States, 812 F.2d 1444 (3d Cir. 1987).

¹⁵ Rate Regulation Reforms, EP 715 (BNSF Comments Filed December 7, 2012).

¹⁶ Surface Transportation Board's 2018 Determination of Railroad Revenue Adequacy, Docket No. EP 552 (Sub-No.23), (STB served September 4, 2019).

¹⁷ Surface Transportation Board's 2018 Determination Railroad Revenue Adequacy, Docket No. EP 552 (Sub-No.23), (STB served September 4, 2019).

¹⁸ *Ibid.*

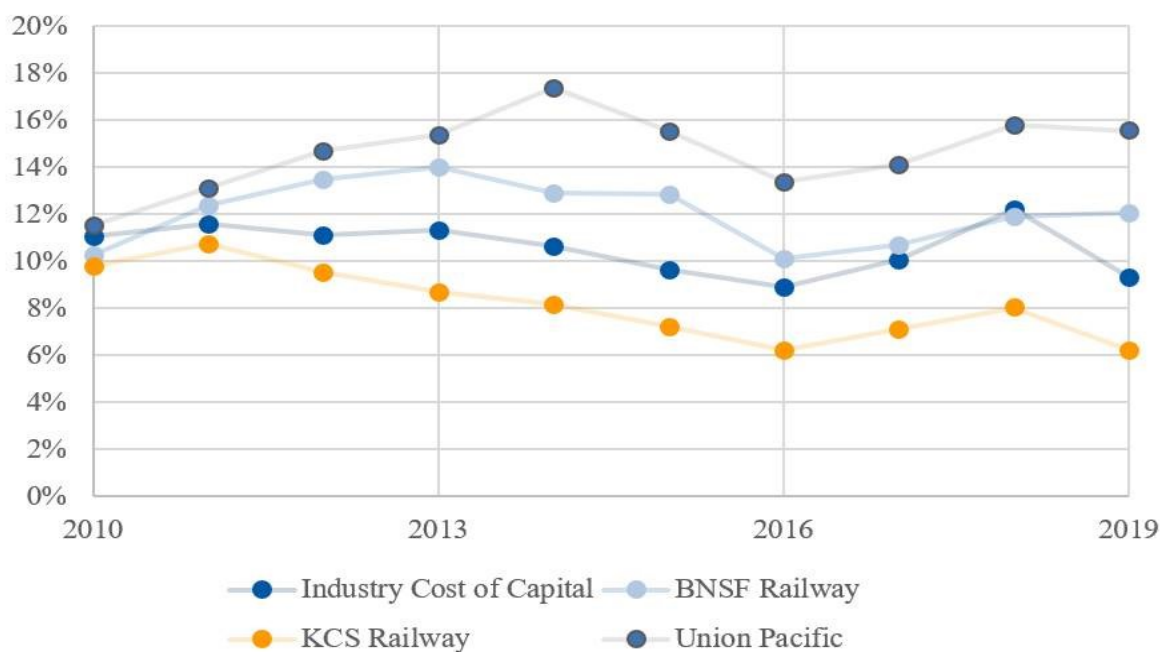
¹⁹ BNSF's ROI is nearly 30% greater than the industry cost of capital. $1.29 = 12.04/9.34$.

²⁰ BNSF's ROI is nearly double or twice as large as KCS's. $1.94 = 12.04/6.20$

industry cost of capital as well as KCS's ROI. In fact, for the year 2019, KCS's ROI (equal to 6.20%) was approximately 33% below the industry cost of capital (equal to 9.34%), which is the ROI required for KCS to be deemed to be revenue adequate.

A review of the STB's railroad revenue adequacy reports in prior years shows a similar result. BNSF (and UP) were revenue adequate according to the Board's statutorily determined approach and KCS's earnings were determined by the Board to be well below the industry cost of capital and therefore revenue inadequate. For example, the Board reported a 2018 railroad industry cost of capital equal to 12.22%, which is 50% higher than the ROI determined by the Board for KCS, which was reported as 8.03%.²¹ For this same year, BNSF and UP reported 11.89% and 15.80% ROIs, respectively, which approximates or exceeds the industry cost of capital. Figure 1 below shows the recent historical performance of BNSF, UP, KCS as compared to the industry cost of capital.

Figure 1: Revenue Adequacy for the Railroad Industry, BNSF, KCS and UP²² (2010-2019)



²¹ Surface Transportation Board's 2018 Determination of Railroad Revenue Adequacy Docket No. EP 552 (Sub-No.23)(STB served September 5, 2019).

²² See Carey Opening WP "Revenue Adequacy.xls." Surface Transportation Board's Determination of Railroad Revenue Adequacy, EP 552 (Sub-No.23) (Filed (October 1, 2020).

C. Economic Circumstances for KCS's Revenue Adequacy Related to the Rosebluff Lead

The revenue adequacy requirement of the Board's regulatory regime is particularly relevant because this case does not involve a typical prerequisite for rate regulation intervention that arises from a sole served shipper seeking a check on the reasonableness of its rate because of the absence of sufficient competitive market forces to constrain the rates. Rather, this case addresses BNSF's request for direct access to the Rosebluff Lead which is co-owned by UP and KCS (equal partners with 50% ownership interests). BNSF's long-standing access to Lake Charles area customers through reciprocal switching arose from the UP/SP merger.²³ In that merger, UP reached an agreement with BNSF and the Board agreed to grant BNSF access to the Lake Charles area customers to maintain competition in the markets that would be combined as a result of the merger.²⁴ As a result of that agreement, BNSF derived substantial benefits through access to the Lake Charles and other market areas. UP derived substantial merger-related benefits throughout its newly expanded network system. However, KCS is the only railroad with nothing gained from the forced access that UP and the Board granted BNSF in the Lake Charles area. While the government-mandated access that was granted was beyond KCS's control it resulted in the unavoidable diminution in the value of KCS's 50% owned trackage of the Rosebluff Lead in Lake Charles (as I discuss further in Section IV.A).

In addition to having a historical outdated and artificially low non-market rate trackage rate (which may exist in other cases), the heightened competitive market forces of three railroads in the Lake Charles market area further imposed a constraint (directly or indirectly) on KCS's ability to earn adequate revenues due to the government-mandated access by BNSF. (See Exhibit 2 for discussion of competitive market dynamics in Lake Charles). A unique and problematic issue, in this case, is that BNSF now seeks an SSW Compensation based direct access fee to directly access the Rosebluff Lead customers to facilitate an even lower below market rate and improved competitive positioning with customers. BNSF seeks a rate that is well below other real-world negotiated market-based reciprocal switching rates comparable to the Lake Charles

²³ FD 32760 (Sub-No. 46), Decision No.3, slip op. at 2 (STB served June 29, 2016) (Decision No. 3).

²⁴ *Id.*

market area (see Section V) that BNSF would otherwise have had to competitively negotiate with KCS.

The additional BNSF competition for Rosebluff Lead customers that existed in the past through switching and potentially now through direct access has and will continue to impede KCS's ability to derive the full value of the 50% ownership share of the Rosebluff Lead Lake Charles trackage. The net effect of the direct access that BNSF now seeks with an artificially low rate (i.e. below real-world market-based rates) will further erode the value of KCS's 50% ownership share of the Rosebluff Lead trackage in Lake Charles. As such, KCS is denied its fullest ability to earn adequate revenues to support its network system as much as revenue adequacy regulation and negotiated market-based rates would allow.

For these reasons, the Board should give due consideration to ensure that the deemed apportionment of revenues, rents, and profits underpinning the BNSF Lyondell market-based access fee should be determined with appropriate revenue adequacy requirements to ensure KCS receives an appropriate contribution to its network and services it provides to its customers. Specifically, the regulatorily determined rate that the Board will set in this proceeding is government-mandated and implicitly determines how much of the contribution to the rest of KCS's network system KCS will receive vis-à-vis BNSF. Only with due consideration of revenue adequacy in determining the appropriate market-based access fee will the Board ensure that BNSF cannot usurp the contributions to the rest of KCS's network that are implicitly at stake when BNSF seeks to extract customers and contribution from the Lake Charles area.

My approach to developing a real-world market-based access fee to use as a proxy competitive market-based rate for BNSF direct haulage access to Lyondell is the best way to ensure that KCS derives a going forward rate commensurate with the market and consistent with the revenue adequacy requirement (See Section V below).²⁵ Further, I also include an evaluation of BNSF's expected contribution margin to ensure that a reasonable split of contributions between BNSF and KCS results for the Lyondell traffic moves (i.e. not disproportionately high

²⁵ Even if an appropriate rate is set going forward. KCS has achieved substantial lost profits in the past from diminution in its 50% ownership share of the Lake Charles trackage resulting from artificially low and non-market rate that reduced revenues (from lower revenue from a lower rate and lower volumes) more than it otherwise would but for government mandated access. See Section IV.A below

share to the BNSF pockets at the expense of KCS and its ability to contribute to its network). (See Section V below)

III. ECONOMIC APPROACH TO DEVELOP THE APPROPRIATE TRACKAGE RIGHTS COMPENSATION FOR THE ROSEBLUFF LEAD

A. Economic and Regulatory support for a real-world market-based access fee

But for the regulatory intervention, BNSF and KCS would be two willing buyers and sellers negotiating in the market to split the economic surplus²⁶ required to set a market-based access fee for BNSF to directly access the Lyondell or other Rosebluff Lead customers and the specific commodity products that are transported.²⁷ With that in mind, a real-world market-based outcome is the economically appropriate and preferred approach to setting a market-based access fee for BNSF to gain direct access to Lyondell as it is a fee compensation rooted in the sharing of contribution that KCS would have negotiated with BNSF absent the forced access.

A regulatorily determined rate prescription does not result from a real-world commercially negotiated rate by BNSF and KCS (as discussed further in Section IV). As such, a regulatorily determined outcome may be characterized as asymmetric profit regulation.²⁸ Implicitly BNSF seeks an asymmetric economic advantage to KCS's (i.e. competitive advantage in the Lake Charles area) through a one-sided regulatory prescription to receive an artificially low non-market rate to access the Rosebluff Lead as a regulatory priority over KCS ability to adequately and fairly earn contributions for its network. It does so with the general understanding that it will get a lower rate through a regulatory determination than it would if it engaged in market-based rate negotiations with KCS. Said differently, if BNSF believed it could

²⁶ Economic surplus is represented by the gain by consumers (producers) who would be willing to buy the good at a higher price (sell the good at a lower price) but transact at a lower price (higher price). This is referred to as consumer (producer) surplus. Practically speaking, if a consumer valued a good at \$5 and the market price of the good is \$2, that consumer's surplus for that good is \$3. Conversely, if a producer is willing to sell a good for \$1 and the market price of the good is \$2, then the producer's surplus on that good is \$1. The sum of the market participants' surplus on goods in the market represents economic surplus. See, e.g. Boulding, Kenneth E. (1945). "The Concept of Economic Surplus". *The American Economic Review*. 35 (5): 851–869. JSTOR 1812599.

²⁷ As discussed further below, this would generally make both parties better off.

²⁸ This economic concept was raised before the STB with respect to additional regulation of all railroads to limit or cap railroad earnings. I use the economic concept slightly differently as to the effect on KCS vis-à-vis BNSF. Reply Comments Of The Association Of American Railroads, Ex Parte No. 722, (Filed November 4, 2014).

obtain a lower rate in the market, it would do so. As such the regulatory prescription should note override real-world market-based rate fundamentals observed in reciprocal switching rates that are commercially negotiated and agreed to between and among Class 1 railroads.

Economic literature widely discusses that regulation only should be imposed in instances where, due to market failure of some kind, competition cannot deliver a better, more efficient result. As Alfred Kahn's classic text, *The Economics of Regulation*, makes clear:

What institutional incentives, compulsions, and arrangements will play the same role where the “invisible hand” of competition is for one reason or another infeasible? “The visible hand of regulation” is not a sufficient answer. The reason [is that] the initiative, operating control, and responsibility for economic performance continue, even under regulation, to rest primarily with private management. The role of the government remains essentially negative—setting *maximum* prices, supervising expenditures, specifying *minimum* standards of service, in short, contravening the decisions of private persons only after the fact, only when their performance has been or would be obviously bad. In these circumstances, **regulation cannot supply the same assurances as competition that performance will be positively good—efficient, progressive, risk-taking, innovative.** Its most important task is to define and develop institutional arrangements that will provide correspondingly powerful incentives and pressures on regulated monopolists.²⁹ **(emphasis added)**

Other economic treatises also discuss regulation as a less than perfect substitute for competition.³⁰ Additional regulation (including asymmetric or one-sided regulation) can result in unintended consequences and can potentially reduce a willingness to engage in risky investments that could improve or expand service.³¹ This is consistent with recognized economic views of

²⁹Alfred Kahn, *The Economics of Regulation: Principles and Institutions*, at 18 (MIT Press 1988).

³⁰See, e.g., W. Kip Viscusi, John M. Vernon, and Joseph E. Harrington, Jr., *Economics of Regulation and Antitrust* at page 10 (MIT Press 3d ed. 2000) (“The successive disappointments with regulatory policy have given rise to the terminology ‘government failure’ to represent the governmental counterpart of market failure. In much the same way as markets may fail because some of the idealized assumptions fail to hold, the government too may fail. Our task is not always to replace a situation of market failure with government action, for governmental intervention might not yield a superior outcome. We should always assess whether the particular kinds of intervention that have been chosen will actually enhance market performance and improve our welfare to as great an extent as possible.”).

³¹Recent analysis of the rail industry shows that lower revenues leads to less infrastructure investment. George S. Ford, “Infrastructure Investment in the Railroad Industry: An Econometric Analysis,” Phoenix Center for Advanced Legal & Economic Public Policy Studies, December 9, 2019, <https://www.phoenix-center.org/perspectives/Perspective19-07Final.pdf>.

uncertainty and risks that there can be limitations to widely held assumptions of economic incentives of firms to maximize profits.³² As a result regulatory risk, market risk and other types of risk can have a ripple effect impact on business decision making.

Since the reforms of the Staggers Act, the railroad industry has been an exemplar of enabling workable competition to the greatest extent possible, observing the fruits of competition in terms of volume expansion, rate declines, volume increases, productivity, and operational performance enhancements as well as technological innovation.³³ The ICC and now the STB as the guardian of limited regulatory oversight only when a dominant railroad exists should give due consideration to the unique circumstances in this case.

The Board's policies have fostered robust and sustainable railroad networks through reliance on the invisible hand of competitive market forces and differential pricing for market-specific circumstances to yield commercial outcomes to the maximum extent possible with protections to individual shippers where insufficient competition exists to do so. In so doing, the Board has recognized the importance of competition and market prices in that competitive market conditions lead to economically efficient outcomes. It is with proper economic price signals that an efficient allocation of resources results including important signals of impacting choices of products and services as well as directing necessary capital investment. Also, the STB's policies implicitly recognize that regulation and rate prescriptions can be distortive in nature if they do not mimic the commercial realities of the market and, therefore, should be used with great caution (i.e. only when absolutely necessary).

In this case, the STB seeks to address the appropriate economic payment to facilitate a customer's direct access to Lyondell over the Rosebluff Lead, which is provided for by three railroads. The competitive dynamic at the Rosebluff Lead is a far different economic circumstance than a customer who is solely served by one railroad without good transportation alternatives for which the STB typically evaluates rate reasonableness disputes. With such a market that includes

³² Frederic Scherer and David Ross, *Industrial Market Structure and Economic Performance*, Chapter 2, at 38-40 (Houghton Mifflin 1990, 3rd 11 ed.).

³³ Testimony of Ian N. Jefferies President & Chief Executive Officer Association Of American Railroads; Hearing On Passenger And Freight Rail: The Current Status Of The Rail Network And The Track Ahead. Before The United States Senate Committee On Commerce, Science, And Transportation; October 21, 2020 at page 5 and generally. <https://www.commerce.senate.gov/services/files/C7C6392C-E283-4A93-9C02-C85F17E6834B>

numerous competitive alternatives, an opportunity arises to engage in negotiations among multiple parties to reduce costs and to rely on multiple transportation providers. A market in which even with a few competitors operate can generally be consistent with real-world market-based outcomes that are negotiated and agreed to by parties as discussed below.³⁴

These factors lead to a dramatically more pro-competitive outcome than the singular railroad serving a sole customer that is often the focus in rate reasonableness disputes. Rate reasonableness cases that involved three competitors in a market would be atypical and uncommon as trackage rights prescribed by the Board typically involve the ability of a second railroad to access a customer. Stand-alone costs (or the close equivalent RCNLD) are relied upon as a surrogate to estimate a reasonable rate level in the absence of effective competition (i.e. typically a single railroad).³⁵ Here, real-world competitive market conditions inform the evaluation of an appropriate market-based access fee as well as relevant and comparable competitive market rates from real-world negotiated outcomes that can be used.

With the unique economic circumstances in this case (including the forced access beyond KCS's control), three railroad competitors, and revenue adequacy constraints, due consideration should be granted to KCS to ensure that it does not receive differentially lower market-based access fee than that which it could receive through competitive negotiations (where parties would share in the contributions). In this case, a market-based access fee estimated based on competitively negotiated market-based reciprocal switch rates (adjusted to remove the switching cost) is the only approach to doing so. This approach is generally consistent with Coal Rate Guidelines that sought to have captive shippers "...not be required to pay differentially higher rates than other shippers."³⁶ Here KCS should not be forced to receive an estimated prescribed rate that is less than a market-based access fee based on the real-world market-based reciprocal switch rates (removing the switching cost). Such an approach would give due consideration to the

³⁴ For example, BNSF's negotiations with Lyondell included [REDACTED] of actual bids. See BNSF-LC2020-HC-0009005.xls at tab "8-5 Totals Final."

³⁵ See, e.g., Simplified Standards for Rail Rate Cases, EP 646 (Sub-No. 1), slip op. at 13 (STB served Sept. 5, 2007) ("CMP, with its SAC constraint is the most accurate procedure available for determining the reasonableness of rail rates where there is an absence of effective competition.").

³⁶ Coal Rate Guidelines, Nationwide, 1 I.C.C. 2d 520 (1985), *aff'd sub nom. Consolidated Rail Corp. v. United States*, 812 F.2d 1444 (3d Cir. 1987) at 17.

priority of competitive market forces and revenue adequacy-based outcomes which are consistent with the STB priorities.

For these reasons, as I will discuss further in the next section, a market-based access fee based on the real-world market-based reciprocal switch rates comparable to Lyondell in Lake Charles (adjusted to remove the switching cost) is an appropriate estimate of an efficient and effective competitive price proxy and preferable to a second-best solution such as rate regulation.³⁷

B. Parties have agreed that a comparable real-world market-based reciprocal switching rates provide an economically appropriate and independent benchmark

The real-world, market-based reciprocal switching rates are appropriate to use because they are set by the market participants as agreed to or otherwise negotiated between the parties and used every day to conduct business for railroad customers to the benefit of railroads working together so that they are better off than they would otherwise be. Due to the large prevalence of real-world reciprocal switch rates, a subset of such rates can be identified for key business areas that are reasonably similar to the economic circumstances in Lake Charles, LA. I discuss the market-based access fee and comparability of other geographic areas further below in Section V.

The real-world market-based reciprocal switch rates as the appropriate competitive regime are well recognized by BNSF, UP, KCS, and other Class 1 railroads in filings before the STB. Below are a few examples of BNSF articulating a railroad carrier's view that the Board should not intervene unless absolutely needed, particularly where competitive market forces of commercial relationships are "properly functioning." In essence, BNSF's stated views are that competition is preferable to a "forced" switching regime at issue in the Ex Parte 711 case.

"As set forth in BNSF's Opening Comments, a primary concern with the Board's **proposed reciprocal switching rules is that they would allow unnecessary Board intervention in properly functioning markets**[...] BNSF believes that the Board's proposed two-pronged regime is inconsistent with this Congressional mandate because it fails to **adequately consider, and defer to, market conditions**. See Opening Comments of BNSF Railway Company, at 3-9.³⁸" **(emphasis added)**

"BNSF believes that the Board's proposed revisions to its switching rules fail to strike the appropriate balance between the needs of shippers, railroads and

³⁷ As discussed in Section IV below, this market-based access fee rate may be used for other customers in Zone 1 and Zone 2 in the Rosebluff Lead.

³⁸ Reciprocal Switching, EP 711 (Sub No. 1) (BNSF Comments Filed January 13, 2017).

the public [...] In considering its reciprocal switching regime, the Board must maintain fidelity to Congress's deregulatory mandate and avoid adopting changes destined to increase unnecessary Board intervention in properly functioning markets.³⁹” (emphasis added)

“BNSF believes that the Board must allow market forces to govern the commercial relationships between railroads and their shippers, and must not create standards that allow unnecessary Board intervention in properly functioning markets. While important details of the Board's proposed new rules are not yet clear, the new standards set forth in the Board's Decision would appear to allow shippers to seek a reciprocal switching order even when markets are functioning properly. Congress did not intend for the Board to intervene in those situations without a compelling reason to do so, and the Board's proposed rules do not reflect this strong congressional policy.⁴⁰” (emphasis added)

“In its Decision, the Board recognizes that it must "strike the appropriate policy balance" between the needs of shippers, railroads and the public, while operating within the confines of Congressional de-regulatory policy as embodied in the RTP. Decision at 15-17. BNSF understands that in certain situations a shipper might be able to demonstrate a compelling need that calls for Board intervention in the form of a reciprocal switching order. However, BNSF believes that, as currently proposed, the Board's new reciprocal switching rules fail to strike the appropriate balance because they would permit Board intervention into otherwise properly functioning markets without a demonstration of shipper need. Further, any appropriate balancing of policy considerations in this proceeding cannot occur in a vacuum, but must instead consider and account for the cumulative impact that this and other proceedings currently under consideration will have on railroad investment.⁴¹”

BNSF also emphasized the “properly function markets” that in its view, demonstrated “no apparent need for regulatory intervention.”⁴² -I agree with BNSF that competitive market forces should be relied on wherever possible. That is one of the reasons that I advocate for reliance on a real-world market-based reciprocal switching rate as an estimated market-based access fee for BNSF to obtain direct access to Lyondell rather than the imposition of a regulatorily determined rate estimate.

Within the Ex Parte 711 case, BNSF, UP, and the other railroads also explained that the historical STB competitive regime of real-world market-based reciprocal switching rates is integral to the investment to rationalize the entire railroad network and the provision of the

³⁹ Reciprocal Switching, EP 711 (Sub No. 1) (BNSF Comments Filed January 13, 2017).

⁴⁰ Reciprocal Switching, EP 711 (Sub No. 1) (BNSF Comments Filed October 26, 2016).

⁴¹ Reciprocal Switching, EP 711 (Sub No. 1) (BNSF Comments Filed October 26, 2016).

⁴² Reciprocal Switching, EP 711 (Sub No. 1) (BNSF Comments Filed October 26, 2016).

highest quality service to customers and strongly preferable to “forced switching and a diminished ability to engage in differential pricing.” Below are a few additional examples of concerns raised by Class 1 railroads in the reciprocal switching proceeding.

“The forced switching regime proposed in the Notice of Proposed Rulemaking served July 27, 2016 (“NPRM”) would cause great harm to the rail industry and the shipping public, as the opening comments and evidence submitted by Union Pacific and other railroad parties showed. If implemented, **the Board’s proposal would reverse the regulatory policies that we have relied on over many years in investing to rationalize our network and improve our service to customers.** It would allow certain shippers to demand service that our network is not designed to provide. Accommodating those demands would degrade service to all customers and could cause service meltdowns. Our customers would also suffer harm because a **forced switching regime would reduce the expected benefits, and thus the likelihood, of new capital investment in rail infrastructure.**^{43”} (emphasis added)

“Shippers’ comments supporting the Board’s proposal help demonstrate that the proposed rules would unlawfully use forced switching to regulate the rail industry’s rates and structure. [...]”^{44”}

“If implemented, the Board’s proposal would return the rail industry to its Balkanized past, risking the repetition of failures that plagued the rail industry in earlier years. [...] They also would have **fewer resources to pay for such facilities if forced switching reduced their returns through diminished traffic or a diminished ability to engage in differential pricing.** [...]”^{45”}

“The Board should not adopt the forced switching rules contained in its Notice of Proposed Rulemaking (“NPR”).⁴⁶ The opening comments by the shippers clearly establish that their goal for the proposal is to lower rates. There would be no requirement for a shipper to show that an incumbent carrier has abused its market power or that there has otherwise been a failure in the marketplace. [...] When there has been no market abuse by an incumbent carrier or failure of the marketplace so as to justify government interference, there is no public interest or competitive need justifying the Board’s proposed remedy.

If the proposal is adopted, there could be significant unintended consequences to the rail network. These consequences include, but are not limited to, significant operational interference and congestion, inefficient switching and routes, reductions in revenues available for investment,

⁴³ Reciprocal Switching, EP 711 (Sub No. 1) (UP Comments Filed January 13, 2017).

⁴⁴ Reciprocal Switching, EP 711 (Sub No. 1) (UP Comments Filed January 13, 2017).

⁴⁵ Reciprocal Switching, EP 711 (Sub No. 1) (UP Comments Filed October 26, 2016).

⁴⁶ Reciprocal Switching, EP 711 (Sub-No. 1) (STB served July 27, 2016).

stranded infrastructure, and distortions in when, how, and why to invest in additional infrastructure. [...]⁴⁷” (emphasis added)

“The Board should not adopt its proposed rules. The proposal is simply an attempt to regulate rates outside of the rate reasonableness process by artificially creating rail-to-rail competition. [...]

Finally and critically, any final rules should adopt an access pricing methodology that promotes the RTP. The two methodologies proposed by the Board do not adequately consider a railroad's ability to attain revenue adequacy. Therefore, the Board should incorporate ECP into its access price methodology. Failure to do so will **drive carriers further away from revenue adequacy** and is likely unconstitutional.⁴⁸” (emphasis added)

“The Board should not adopt the forced switching rules contained in its Notice of Proposed Rulemaking ("NPR") because [...] **The proposal is intended by the Board to regulate rates by creating rail-to-rail competition by regulation, not market forces. [...] When carrier behavior is lawful, there is no public interest or competitive need justifying the Board's proposed remedy.**⁴⁹” (emphasis added)

As the above discussion makes clear, the real-world market-based reciprocal switching rates encompassed within the competitive regime of negotiated reciprocal switching rates directly and substantially is intertwined with railroad network investment. Railroads rely on the benefits of negotiated reciprocal switching to access other market areas and new customers based on willing buyer and seller negotiated agreements at a fair market value rate. Further, the rates, rents, and profits that a railroad receives from competitively negotiated reciprocal switching rates are used to ensure necessary capital investments are made throughout the network and beyond the specific location of the interchange used to serve specific customers. Such intervention and “forced switching” and “diminished ability to engage in differential pricing” permanently and significantly alter the competitive dynamic which can result in “significant unintended consequences to the rail network.” Such impacts include, but are not limited to, reduced revenues for network investment, potentially stranded investments, and economic distortions to demand response and operations.

The negative impacts from “forced switching” explained by the Class 1 railroad carriers can reasonably be expected to even more severely affect smaller Class 1 railroads, such as KCS.

⁴⁷ Reciprocal Switching, EP 711 (Sub No. 1) (KCS Comments Filed January 13, 2017).

⁴⁸ *Id.*

⁴⁹ Reciprocal Switching, EP 711 (Sub No. 1) (KCS Comments Filed October 26, 2016).

With a less broad geographic scope of network operations and less diversity of types of customers, a smaller Class 1 railroad has less flexibility and reduced options to facilitate any enhanced differential pricing that could be used to minimize the impacts of forced switching in a specific location (such as the case at hand).

The form of compensation from BNSF to KCS is most appropriately identified as a market-based access fee. It is the only rate that will put KCS in the same economic position in which it would have been otherwise but for the government-mandated BNSF access. The Board has recognized that market-based rates can serve as the basis for resolving competitive concerns resulting from mergers and provides shippers with adequate access to another carrier when that access is threatened through a merger.⁵⁰ In fact, railroad regulation of reciprocal switching rates dictates that arm's length agreements by the carriers is preferred, and only if such negotiations fail does the Board step in.⁵¹

From an economic perspective, the revenue that KCS should receive should be similar to what KCS would have received through a market-based negotiation, either the KCS revenue division in a KCS/BNSF joint-line movement or the reciprocal switching rate that KCS would have otherwise received from BNSF to provide BNSF access to Lyondell. Such a compensation approach results in a market-based outcome that recognizes that BNSF does not own the trackage and ensures that KCS is not put at a competitive disadvantage because of government-mandated access through a merger condition where KCS was not even a merger applicant.

There is broad agreement among academics, government agencies, regulators, and judicial bodies that willing buyer and seller transactions and the prices paid as a result of such agreements should be deemed representative of fair market value and, therefore, to have been

⁵⁰ Canadian National Railway Company, Grand Trunk Corporation, And Grand Trunk Western Railroad Incorporated – Control – Illinois Central Corporation, Illinois Central Railroad Company, Chicago, Central And Pacific Railroad Company, And Cedar River Railroad Company, 4 S.T.B. 122, 1999 STB LEXIS 305, *30-*33 (1999) (approving privately negotiated settlement agreement granting KCS haulage rights to access certain shippers and at market based rates much higher than the market rates proposed for Lake Charles in Section V below.)

⁵¹ “According to 49 USCS § 11102, ‘The rail carriers are responsible for establishing the conditions and compensation for use of the facilities.’ Only if they fail to establish compensation terms may the Board step in. Likewise, Section 11102(c) on reciprocal switching provides that ‘The rail carriers entering into such an agreement shall establish the conditions and compensation applicable to such agreement,’ and only if they fail to do so do the regulators step in. Both provisions indicate that the negotiated, market price is preferred. If called on to set the price, the Board should seek to emulate that market price.”

determined through a competitive process. In the U.S., the concept of fair market value appears throughout the Internal Revenue Code, as a means to establish the value of an asset for purposes of taxation. It is defined as the “price at which the property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of relevant facts.”⁵²

Courts have consistently upheld the principle that the value of property can be established by the terms arising from negotiations and the prices paid, provided that the terms of the agreement are the result of arm’s length bargaining between parties. Courts have clarified that the market in which the arm’s-length negotiations occur the number of parties to the transaction may be quite limited.⁵³ What matters is that a fair and reasonable price can be ensured under the circumstances.⁵⁴ In *Hunter v. Comm’r*, the court held that the best indication of value was what parties paid in an arm’s-length transaction for limited edition prints that were subsequently donated.⁵⁵

Other regulatory agencies also recognize that negotiated rates from a competitive solicitations process are reasonable benchmark rates. As example, the Federal Energy Regulatory Commission’s (FERC) routinely concludes that rates that are freely negotiated between pipelines

⁵² Title 26 of the Internal Revenue Code, 26 C.F.R §20.2031-1(b) (Definition of Gross Estate; Valuation of Property).

⁵³ *Comm’r v. Patino*, 186 F.2d 962, 967 (4th Cir. 1950), *aff’g* 13 T.C. 816 (1949); (“It is entirely proper for parties to a contract to make their own estimates of values; and if they are dealing at arms length and there is no reason to question the bona fides of the transaction, their valuations may be accepted as correct.”)

⁵⁴ *Bank One Corp. v. Comm’r*, 120 T.C. 174 (2003), *aff’d in part, vacated in part, and remanded*, 458 F.3d 564 (7th Cir. 2006). (“Petitioner has not directed our attention to any case where fair market value was predicated on or limited to the amount that a hypothetical investor would pay for the property, rather than the broader group referred to in the accepted definition as a “willing buyer.” Fair market value does not mean, of course, that the whole world must be a potential buyer of the property offered, but only that there are sufficient available persons able to buy to assure a fair and reasonable price in the light of the circumstances affecting value. In considering the term “fair market value” as used in section 301, *supra*, we cannot restrict the market to dealers, investors, or any other limited groups.”)

⁵⁵ *Hunter v. Comm’r*, 51 T.C.M. 1533 (1986). (“It is clear to us that the transaction between Rocquencourt and petitioners was at arm’s length, involving as it did a 100 percent markup by Rocquencourt. The record is devoid of any explanation of why Rocquencourt would sell the prints to petitioners for less than fair market value...As we found in *Chiu v. Commissioner*, *supra*, we also find here no credible explanation as to why petitioners would be able to acquire the prints at substantial discounts from value. Thus, we believe that the fair market value price of the prints in October 1978 (as well as in December 1979) was the price paid for them by petitioners.”)

and shippers are presumed competitive.⁵⁶ FERC ensures oil pipeline rates are “just and reasonable” through accepting rates under its “Settlement Rate Methodology,” which “reflect the agreement of shippers and the pipeline”⁵⁷ For example, a pipeline system with market-based rates recently expanded its system, establishing “Committed Shipper Rates.”⁵⁸

Economists study the behavior of market participants that engage in competitive negotiations and willing buyers and willing sellers that can lead to fair market value outcomes. The concepts of fair market value, fair market price, market price, and competitive price are rooted in fundamental economic concepts of supply, demand, and competitive negotiation. Economic theories of bargaining recognize that competitive negotiations can result in competitive outcomes in a manner that splits the benefits in a workable manner between the parties; if they did not, parties would not agree to the deal. Specifically, bargaining theory predicts that each party will consider its best alternative to a negotiated agreement (“BATNA”) when negotiating and will “walk away” from an agreement if it does not yield gains in excess of the BATNA.⁵⁹ Thus, the price that results from competitive bargaining is necessarily higher than the seller’s walk-away price or “reservation price”,⁶⁰ and lower than the buyer’s reservation price, such that the transaction is mutually beneficial. The difference between parties’ reservation prices gives the total economic surplus that results from successfully arriving at a mutually beneficial agreement. The competitive negotiations require certain conditions to hold in order to be consistent with a competitive market outcome.⁶¹ Economic theory predicts that the

⁵⁶ See *White Cliffs Pipeline, L.L.C.*, 173 FERC ¶ 61,155 (2020) at P 49; *Express Pipeline P’ship*, 76 FERC ¶ 61,245 (1996); *Seaway Crude Pipeline Co. LLC*, 146 FERC ¶ 61,151 (2014)

⁵⁷ Interstate Commerce Act, U.S. Code Volume 19, Title 49, Chapter 1, §1, 5(a) (1988 Edition at page 522-3) Order No. 561, “*Revisions to Oil Pipeline Regulations Pursuant to the Energy Policy Act of 1992*”, FERC Stats. & Regs., Regulations Preambles, Jan. 1991 – June 1996 ¶ 30,985, 30,942 (1993) at 30,959.

⁵⁸ Magellan’s FERC Tariff Nos. 186.5.0 and 180.8.0 identifies movements from the U.S. Gulf Coast to North Little Rock, AR, El Paso, TX, and destinations in New Mexico for which it offers “Committed Shipper Rates” or reserved capacity. Magellan 170.28.0 also identifies volume incentive rates to Little Rock, AR. See Magellan FERC No. 186.5.0, P66 FERC 9.7.0, Magellan FERC No. 180.8.0 and Magellan FERC No. 170.28. *Magellan Pipeline Company, L.P.*, Order on Petition for Declaratory Order, 166 FERC ¶ 61,181 (2019).

⁵⁹ See generally Avinash Dixit and Susan Skeath, *Games of Strategy* 524-47 (1999). BATNAs are also referred to as threat points, disagreement points, backstop payoffs, and fallback payoffs.

⁶⁰ Ian Steedman, *The New Palgrave: A Dictionary of Economics*, v. 4, “Reservation price and reservation demand,” 158-159 (1987).

⁶¹ A few examples include negotiations that are free of duress (because it destroys freedom of action) as well as not undue information asymmetries. Robert Cooter and Thomas Ulen, *Law & Economics*,

split of the surplus depends on the bargaining abilities and relative patience, (i.e. its cost associated with delay, in reaching an agreement for each party, with a greater share of the surplus going to the more skilled or patient party).⁶² Economic theory predicts that the price arrived at through competitive bargaining will lie between the buyer's maximum acceptable price and the seller's minimum acceptable price, such that the transaction is mutually beneficial and therefore economically efficient, making both parties better off.

In this case, the revenue compensation that KCS should receive should be similar the compensation KCS would have received through a market-based negotiation with BNSF. Such an outcome is also consistent with a fair market value fee that would have resulted from competitive negotiation of a willing buyer and a willing seller whom were free to “walk away” from any agreement (i.e. absent the government mandating BNSF competitive access to KCS served joint line shippers). Commercially negotiated rates – even with a few entities – are recognized by economists as competitive market outcomes with certain conditions. Bilateral negotiations with a single entity or a small number of parties will be affected by bargaining stature, bargaining leverage, information asymmetries, and other factors that would not be present in a market of many buyers and sellers and will impact the negotiated price. When competitive negotiations occur among a small number of parties, there is typically a range of possible competitive prices, as opposed to a single, unique value.⁶³

Consequently, many factors will affect the resulting negotiated price. These types of bilateral negotiations can lead to a range in competitive price outcomes similar to the types of market-based rates that are negotiated and agreed to by Class 1 railroads for reciprocal switching rates—those which I rely upon in Section V.

For all of the reasons discussed above, KCS should receive compensation from BNSF for direct access to Lyondell similar to that which it would have received through a competitive

(Addison-Wesley 2000), 3rd edition, at 43 and 206-7. In addition, if transaction costs associated with certain negotiations are too high, some mutually beneficial transactions may fail to occur. Ronald Coase, “The Problem of Social Cost,” 3 *Journal of Law and Economics* (1960), at 7.

⁶² For a discussion of factors affecting bargaining weights, see Kenneth Binmore, Ariel Rubinstein & Asher Wolinsky, “The Nash Bargaining Solution in Economic Modeling,” 17 *Rand Journal of Economics*, 176-188 (1986).

⁶³ In addition, asymmetric information as well as differentiation in economic circumstances could also lead to a broader range of negotiated prices with a potential advantage to the more sophisticated or otherwise advantaged negotiator including the larger entity with greater stature or other leverage characteristics.

market-based negotiation among willing buyers and willing sellers. In other words, in order to best place KCS in the position it would have been but for the forced access, KCS should receive a market-based compensation that the carriers would have agreed to in commercial negotiations.

IV. THE HISTORICAL BNSF RATE TO ACCESS LAKE CHARLES IS ARTIFICIALLY LOW AND A CURRENT ESTIMATE OF AN SSW COMPENSATION RATE WILL PRODUCE A BELOW MARKET RATE

A. The artificially low historical rate for more than two decades has caused irreparable economic harm to KCS

The past artificially low non-market rate that provided BNSF government-mandated access to the Rosebluff Lead customers through the approval of the UP/SP merger settlement has had a profound impact on the competitive market dynamic in Lake Charles.⁶⁴ It has also had a profound impact on KCS through constraining rates, volume, and revenue, directly or indirectly by the competitive pressures imposed by the outdated and artificially low trackage rights fee in effect for more than two decades. BNSF's undue economic advantage for more than two decades has forever changed the competitive landscape in Lake Charles, LA. While the government-mandated access granted was beyond KCS's control, it resulted in the unavoidable diminution in the value of KCS's 50% owned Rosebluff Lead trackage in Lake Charles. Specifically, the constraining forces substantially reduced KCS's rates, volumes, and revenues and therefore the asset value of the trackage owned by KCS/UP as 50/50 co-owners. Since KCS and UP jointly own the Rosebluff Lead and the Rosebluff Yard with equal rights to use the tracks on a 50/50 equal sharing basis, the devaluation of its asset is unavoidable.⁶⁵ Further, shared responsibilities for switching functions by KCS and UP provide operational efficiencies and do not convey

⁶⁴ The merger agreement that UP reached with BNSF and the Board expanded before approving is distinct from commercially negotiated market-based reciprocal switching rates that I discuss in Section III. UP necessarily contemplated the full economic benefits of the proposed UP/SP merger as compared to the cost of providing BNSF with an artificially low non-market rate to access certain location. The economic concession that UP made to BNSF in order to obtain merger approval is a distinct economic circumstance from the commercial negotiations parties would undertake to solely agree on reciprocal switching rates that occur with willing buyers and sellers who can walk away.

⁶⁵ Decision No.3, slip op. at 1-2.

separate and distinct asset ownership.⁶⁶ Further BNSF benefited greatly from substantial contribution for decades— none of which was shared with KCS as would have occurred in a real-world negotiation but for the forced access.

Economics teaches that the competitive price for a given market is equal to the price of the last unit of supply that is needed to meet the last unit of demand.⁶⁷ An additional competitor in the market creates heightened competitive market forces that exert downward pressure on rates and revenues from the business efforts to bid and negotiated to expand customer volumes.⁶⁸ Capturing higher customer volumes and shifting customers to a new service provider are typically gained through low rates and other concessions as well as service-related features. As a result of an additional competitor, volume and rate impacts can result, which both directly impact revenues. BNSF's mandated access with an artificially low non-market rate for more than two decades has forever changed the competitive landscape in Lake Charles, LA. Exhibit 2 contains an overview of the competitive market circumstances in Lake Charles and the developments over time.

As a result of the forced switching in Lake Charles, BNSF has moved large quantities of carloads for Lake Charles customers which is direct evidence of competitive impact. By the 2011/2012 time period, BNSF reached approximately [REDACTED] carloads of movements (on an

⁶⁶ KCS and UP share responsibility for switching the customers on the Rosebluff Lead by designating two zones on the jointly owned trackage and do so to enhance operational efficiency and reduce congestion. Specifically, KCS switches in Zone 1, which encompasses the geographic area east and a short distance south of the Yard, and UP takes the switching responsibility in Zone 2, which consists of the geographic area beginning about 2.3 miles south of the Yard at Bayou D'Inde. KCS and UP each provide switching of cars for the other railroad within the geographic regions of the designated zones, as well as maintaining the track in most of the area that they switch. Both carriers use Rosebluff Yard to exchange cars destined for or originating from the other carrier's zone. Decision No. 3, slip op. at 2.

⁶⁷See., e.g., Paul A. Samuelson & William D. Nordhaus, *Economics*, Chapter 3 at section C (McGraw-Hill, 15th ed., 1995).

⁶⁸ Consider competitive dynamics as existing on a continuum that ranges from perfect monopoly (one seller) to perfect competition (large number of sellers). As additional competitors enter the market, the dynamic becomes more competitive as it moves more toward perfect competition. With each added competitor, there is more competition among the sellers in the market who compete for market share (i.e., volume, which is market demand).

annual basis),⁶⁹ though BNSF's waybill records report a slightly higher number of carloads.⁷⁰ BNSF started to serve a myriad of different customers in the area, including Lyondell, Sasol, Westlake Chemicals, among others.⁷¹ At the time, BNSF was keenly aware of the economic boom transforming the Lake Charles market area⁷² and tactically sought to secure inroads through direct customer access via the Rosebluff Lead with a strategic goal to substantially expand its control of customer traffic in this region in recent years (as I discuss further in Exhibit 2). In 2012, BNSF's strategic business development efforts identified [REDACTED] in revenue opportunities.⁷³ In fact, the future economic opportunity continues to remain strong. As an example, in announcing a recent market development in Lake Charles, LyondellBasell CEO referred to the Lake Charles area as a "world-scale" "petrochemical hub" that is "strategically located in Louisiana."⁷⁴ LyondellBasell agreed to buy a 50% stake in Sasol's new 1.5 million-ton ethane cracker and its nearly 1 million-ton polyethylene plants.⁷⁵

The undue economic advantage from the artificially low-non-market rate has enabled BNSF to achieve movements of nearly [REDACTED] carloads during 2019 for Lake Charles area customers and an estimated [REDACTED] market share, which represents substantial growth in

⁶⁹ This figure is lower than the BNSF waybill traffic records report for BNSF. See Exhibit 3. See BNSF, BNSF, [REDACTED] at BNSF-LC2020-HC-0001286-87, available at BNSF-LC2020-HC-0001269-95.

⁷⁰ See Exhibit 3 for a summary of BNSF's traffic volumes and market share to Lyondell Lake Charles and the entire Lake Charles geographic area.

⁷¹ *Id.* See also Exhibit 2 for additional details.

⁷² BNSF was aware of [REDACTED] BNSF HC-002373. (BNSF HC-002370- BNSF HC-002388.)

⁷³ BNSF, [REDACTED] at BNSF-LC2020-HC-0001285, available at BNSF-LC2020-HC-0001269-95.

⁷⁴ See The Advocate, "Sasol to sell \$2B stake in its Lake Charles petrochemical hub to Houston player; here's what we know about jobs, October 2, 2020, available at https://www.theadvocate.com/baton_rouge/news/business/article_9a8c163c-04b3-11eb-827f-ef6ef22160c1.html

⁷⁵ *Id.* The three units included in the joint venture, known as Louisiana Integrated PolyEthylene JV LLC, manufacture ethylene and polyethylene. LyondellBasell is planning to operate the three units on behalf of Sasol. LyondellBasell already operates a plant within 10 miles, known as the Equistar Chemicals LP Westlake facility.

business over the past decade.^{76,77} See Exhibit 3 for historical traffic volumes for BNSF in Lake Charles. Further, this estimate may be understated as higher traffic volumes are reported in BNSF internal business documents provided in discovery as compared to the waybill traffic data.⁷⁸ [REDACTED]

[REDACTED] With respect to Lyondell, BNSF reported that Lyondell moved [REDACTED] carloads for Lyondell at Lake Charles during the July 2019 to June 2020 period⁷⁹ which is a dramatic increase in carloads over the past two decades. I understand that as a result of highly competitive negotiations, BNSF currently reached an agreement to move only [REDACTED]
[REDACTED]
[REDACTED]

To better understand the competitive dynamic and the impact of an artificially depressed trackage rights fee on KCS's traffic and revenues, consider the following. If a customer knows of a lower market rate than KCS offers (and the lower rate exists because of the artificially

⁷⁶ [REDACTED]

[REDACTED] Similarly, UP waybills may also be conservative for the same reason.

⁷⁷ Further, during the 2017 to early 2020 period, BNSF achieved approximately [REDACTED]
[REDACTED]
[REDACTED] (See Exhibit 3).

⁷⁸ Some of the difficulty tracking carloads may occur because of the movements to and from Storage in Transit ("SIT"). I discuss further in Exhibit 2.

⁷⁹ See BNSF-LC2020-HC-0009005.xls at tab [REDACTED]
[REDACTED] carloads for Lyondell at Lake Charles during the April 2019 to March 2020 period. This reported carload is much higher than the [REDACTED] reported by the waybill traffic records for 2019 (Exhibit 3).

⁸⁰ See BNSF-LC2020-HC-0009005.xls at tab [REDACTED]
[REDACTED], available at Carey Workpapers-HC 00004 (LyondellBasell Bid 2019 - VP Review 11-15-19 HC.pdf).

⁸¹ In addition, BNSF won [REDACTED] cars from various origins, which may apply to Lyondell Lake Charles. See BNSF-LC2020-HC-0009005.xls at tab [REDACTED]

depressed trackage rights fee), the customer has the economic incentive to use the lower rate alternative (e.g. BNSF) or point to the lower rate as a bargaining tool to force KCS to cede a lower rate to keep the business. If KCS does not agree to the lower price, the customer is likely to walk away from KCS and seek rail service from BNSF (or UP), which can offer a lower rate because of the artificially depressed trackage rights fee.⁸² The net effect is that substantial traffic volumes shift to BNSF and the overall Lake Charles area market rate (including for traffic served by KCS) is artificially lower than it would otherwise be and as a result of the old non-market trackage rights fee. The recent Lyondell competitive bid demonstrates the heightened competition that pushed contribution margins lower (see Section V.B below), which is the competitive pressure that BNSF has exerted in Lake Charles area. More railroad competitors provide additional competitive pressures that lead to lower contribution margins (including the erosion of profits). These economic circumstances will further impact KCS (i.e. low rates and likely further erosion of KCS volumes and diminution of its 50% owned Rosebluff Lead trackage in Lake Charles than otherwise would have occurred).

Within Lake Charles and comparable geographic areas, the normal course of business customer bid analyses shows that both BNSF and UP earned [[REDACTED]] percentage points. This real-world competitive dynamic provides economic indicia of the reduced railroad contribution margin earned from lower rates for customers locations with additional railroad competitors. This same phenomenon exists in the Lake Charles area and has affected KCS for decades as a result of the government-mandated access to BNSF. Indeed, UP's concerns for a "forced switching regime" apply to KCS in Lake Charles, due to the "...[F]ewer resources to pay for such facilities if forced switching reduced their returns through diminished traffic or a diminished ability to engage in differential pricing. [...]."⁸⁴ BNSF also recognizes the reduced volumes, rate decreases, as well as stranded investments that may arise from the competition resulting from forced access.

⁸² The same economic scenario applies for a new customer, including the expanded volumes from many Lake Charles customers.

⁸³ As discussed below, contribution margins as reported by the railroads generally represent revenues less variable costs, as such can be described as contribution or margin, etc. In general, these contributions are used to invest in the railroads network system (i.e. fixed costs) and a return on investment.

⁸⁴ Reciprocal Switching, EP 711 (Sub No. 1) (UP Comments Filed October 26, 2016).

“The use of market dominance in this conclusive way is especially inappropriate considering that the **possible consequences for the incumbent railroad of forced switching are potentially more significant than a rate reduction**. In rate cases, after showing the existence of market dominance, a shipper must still show that the challenged rates are unreasonable. **If the rates are unreasonable, the carrier is then required to reduce the rates charged to that particular shipper to reasonable levels**. But under Prong 2 of the proposed rules, a reciprocal switch can essentially be ordered based on nothing more than the existence of market dominance. And **when switching is ordered, all of the traffic at issue may be lost to a competitor**. **Moreover, the effect of a forced switching order is that the competitor will be allowed to use the incumbent's stranded investments that made it possible for the incumbent to access the shipper in the first place.**”⁸⁵

From the government-mandated BNSF access that was beyond KCS’s control, KCS not only derived no benefit (that both UP and BNSF achieved⁸⁶), but rather KCS has faced the unavoidable diminution in the value of its 50% owned trackage in Lake Charles.

The STB can ensure that KCS’s trackage value is not further diminished by requiring BNSF to pay KCS a market-based access fee based on the real-world market-based reciprocal switch rates comparable to Lake Charles (adjusted to remove the switching cost). This approach best ensures that KCS receives compensation and sharing of contribution that KCS would have negotiated with BNSF absent the forced access and which contribute to its network.⁸⁷ Such a compensation approach results in a market-based outcome that recognizes that BNSF does not own the tracks and ensures that BNSF is not granted a further undue competitive advantage because of government-mandated access through a merger condition where KCS was not even a merger applicant.

Further, a real-world market-based access fee based on comparable reciprocal switch rates negotiated and agreed to in the marketplace ensures that a landlord railroad can earn an economically appropriate contribution to the capital used by the tenant, which includes a return

⁸⁵ Reciprocal Switching, EP 711 (Sub No. 1) (BNSF Comments Filed October 26, 2016). BNSF also discussed that forced access (and other potential regulatory changes could have a “...serious impact on railroad’s ability to make infrastructure and other investments. their incentives to make such investments, their ability to properly direct investment to areas where the market forces would otherwise justify them. *Id.* at 12.

⁸⁶ As a result of the UP/SP agreement, UP derived substantial merger-related benefits throughout its newly expanded network system and BNSF derived substantial benefits through access to the Lake Charles and other market areas.

⁸⁷ The form of which could be either the KCS revenue division that would apply in a KCS/BNSF a joint-line movement or the reciprocal switching rate that KCS would have otherwise charged BNSF in order to provide BNSF access to Lyondell.

on the landlord's cost of capital for KCS's network costs, as the landlord. Given the additional concern associated with the longevity of the BNSF participation in the Lake Charles, LA market area with an artificially low non-market rate that directly put KCS at a competitive disadvantage, such a market-based rate mechanism ensures that the appropriate share of contribution to KCS's network is provided through a lost opportunity profit component.⁸⁸ Only with this approach will the apportioned contribution between BNSF and KCS which underpins the market-based access fee be commensurate with market-based rate principles in a manner to best enable KCS to achieve revenue adequacy which would have occurred but for the forced access.⁸⁹ This approach is reaffirmed by a BNSF specific contribution margin percentage and \$/car analysis which shows the large contribution margin percentage and \$/car contribution that BNSF expects to receive from serving the Lyondell traffic. As discussed in Section V, a real-world market-based fee based on comparable reciprocal switch rates negotiated by market participants (adjusted to remove the switching cost) is reasonable and is a small percentage of the split of contribution between BNSF and KCS.

For these reasons, a market-based access fee based on the real-world market-based reciprocal switch rates comparable to Lake Charles (adjusted to remove the switching cost) is an appropriate estimate of an efficient and effective competitive rate for BNSF to directly access Lyondell. Only with such an appropriate and current market-based rate will further erosion of the value to KCS's trackage cease.⁹⁰

⁸⁸ I define below market as compared to the real-world market-based reciprocal switch rates discussed in Section V. The competitive disadvantage resulted in too-low historical contribution to its network and lost contribution that can reasonably be expected to sustain or could grow in the future. In short, KCS is denied the lost contribution to enhance its ability to achieve revenue adequacy. Further, it has been inhibited from earning the real and full economic value of the trackage asset owned in Lake Charles, LA in the future. KCS, in particular, faces greater challenges competing in such an environment as it does not have the full-scale network advantages to enhance its competitive positioning. In addition, KCS doesn't have the deep pockets that BNSF (and UP) do that can be used to perform substantial capital expansions and specific initiatives to tailor services for each customer in the same manner and ability that BNSF and UP have.

⁸⁹ In addition to the disparate impact of not receiving the requisite network contribution from its Lake Charles, LA area as railroads at other comparable geographic areas achieve (as shown in Section V), KCS is further asymmetrically impacted by the government mandated artificially low access rate in so far as it receives a below market rate in Lake Charles, LA but elsewhere it pays the higher market rate.

⁹⁰ To be clear, it does not put KCS in the same economic shoes it would have been in the past (but for the artificially low non-market rate) because it does not include lost opportunity profits in past years. It also does not enable KCS to recapture prior customers it lost (or new potential customers that it did not acquire) that it would otherwise be serving in the future years.

B. An SSW Compensation rate (Based on CE) regulatory rate estimate will lead to an artificially low and inappropriate rate

As discussed throughout this report, a real-world market-based rate is superior to imputation of a regulatorily determined rate estimate in the present case. An SSW Compensation rate (based on CE), where CE refers to capitalized earnings, is not an appropriate valuation approach to use in the current case. As background, the CE valuation approach is a simplified version of the income approach to valuing an asset based on the expected future earnings of the asset and measures the economic value of an asset based on a current short time period (i.e. single year).⁹¹ The CE valuation approach relies on a capitalization rate to derive the present value of earnings. The CE valuation approach is circular and inappropriate to use in the current case because it relies on expected revenues from a current period that have been historically too low as BNSF has only paid an artificially low, non-market-based switching fee to UP in the past to access a robust set of high-value customers.⁹² Accordingly, using historical revenue (or expected future revenues based on these historical switching fee revenues) will not produce an accurate or reliable CE-based valuation. Further, revenue attribution assumptions embedded in the SSW Compensation rate (based on CE) methodology may also not well represent the economics of this market and therefore may inappropriately diverge from the revenue allocation that a willing buyer and seller would agree to in a negotiation, i.e. such as those that routinely occur for market-based reciprocal switch rates.⁹³

There are numerous other assumptions or factors that could further result in an understated SSW Compensation rate (Based on CE). As an example, volume and revenue inputs used to develop the SSW compensation rate (based on CE) could also result in understated

⁹¹ The CE method truncates the traditional discounted cash flow (“DCF”) method of analyzing a stream of expected earnings over time, so that the CE method analyzes expected economic benefits for a single, relatively short period such as a single year as compared to DCF valuation analysis which typically forecasts 20 years into the future. Pratt, *The Market Approach to Valuing Businesses*, Second Edition, p. 59 citing Bonbright, *Valuation of Property*, pp. 249-250. Pratt, S.P., and A.V. Niculita, *Valuing a Business* 5th ed., McGraw Hill: New York, 2008, p. 239.

⁹² It is my understanding that the KCS and UP reciprocal switching rate in the Lake Charles area was developed some time ago and therefore may not encompass the full costs. However, the companies’ agreed upon rate reflects its negotiated agreement which fits with the broader arrangement as joint owners of the Rosebluff Lead.

⁹³ I understand Dr. Neels has relied on an approach to calculate SSW rate (based on CE) that is based on the enterprise value of UP and KCS, and not BNSF.

compensation, if there is underreporting of those inputs.⁹⁴ In addition, revenue apportionment, attribution, or allocation of revenue to the specific trackage at issue in this case as compared to the revenue to move the carloads to the customer destination (or the reverse for an inbound movement) could artificially understate the economic value.⁹⁵

Notably, the fact that the CE valuation approach used by SSW Compensation and presented by Dr. Neels is far lower than the market-based reciprocal switching rates for comparable products and areas to Lake Charles (Section V), further demonstrates that the value of KCS's 50% ownership share of the Rosebluff Lead has diminished due to the economic outcome of the artificially low and non-market-based that eroded rates, volumes, and revenues to KCS on the Rosebluff Lead.⁹⁶ Consequently, such an approach will not adequately compensate the landlord railroad. As such, an SSW Compensation rate (based on CE) in the circumstances in Lake Charles does not allow a carrier to sufficiently contribute to KCS's network or improve revenue adequacy.

Indeed, industry experts around the world have recognized that SSW does not account for lost opportunity profit that contributes to the rest of a railroad system associated with the competitive market access.⁹⁷

C. An SSW Compensation rate (Based on RCNLD) may likely lead to an artificially low and inappropriate rate

As discussed throughout this report, a real-world market-based rate is superior to the imputation of a regulatorily determined rate estimate in the present case. Reconstruction new

⁹⁴ For example, the SSW rate (based on CE) may use conservative traffic volumes. [REDACTED]

[REDACTED] In addition, to the extent that the revenues reported are for only a portion of the movement from Lake Charles to the end customer (i.e. for traffic that is temporarily moved into storage) additional revenues and contribution are achieved for the traffic movement.

⁹⁵ Assumptions about revenue divisions applicable to the issue trackage arise in formalized rate reasonableness case complaints that rely on a stand-alone cost (SAC) analysis.

⁹⁶ I understand that Dr. Neels calculates the SSW Compensation rate (based on CE) for the interest rental component equal to \$47.45 and \$92.09 per car based on the enterprise value and WACC method, respectively. See Verified Statement of Dr. Neels at Table 10.

⁹⁷ For example, International Transport Forum ("ITF") which is a 59-country (including the U.S.) 'think tank' consortium ITF (2018), "Regulatory Capacity Building: Tools for Analysing Rail Connectivity," OECD Publishing, Paris, at 22. See Opening Comments of The Association of American Railroad, Reciprocal Switching, EP 711 (Filed Oct. 26, 2016); and see also, Opening Comments And Evidence Of BNSF Railway Company, Reciprocal Switching, EP 711, at pages 11-13 (Filed October 26, 2016).

less depreciation (RCNLD) has been used to provide an estimate of the cost to duplicate the railroad assets in their present position and assuming the parties would build the asset today to serve existing traffic.⁹⁸ RCNLD does not account for any potential change in technology that may have occurred since the line was constructed. This approach quantifies the replacement cost of the physical asset and includes a return on the cost investment.

In a circumstance of a reasonably new trackage line that extends over a route for some considerable distance (for example, 100 miles, 500 miles, or more miles) with customers dispersed across the route of the railroad with a substantial distance between stations for which the railroad transports basic non-specialized products, a railroad rate based on the replacement or reconstruction costs may provide an objective standard for regulatory ratemaking.

However, there are numerous unique aspects of the Rosebluff Lead and related trackage co-owned by KCS. First, there is a high density of customers with substantial revenue-generating specialized plastics and chemical products dispersed over limited physical trackage (approximately 9 miles).⁹⁹ . The combination of the robust customers and limited trackage are best characterized as the provision of direct access or a gateway to many high-value e specialized customers which often have relatively high reciprocal switch rates which the market is willing to bear. As such a relatively lower capital cost for trackage and large revenue from customers should yield a higher asset value such that it is possible that the value of the Rosebluff Lead can be quite higher than the economic cost derived from the quantification of RCNLD. Based on the differentiated and robust economic condition of the Rosebluff Lead area, an SSW Compensation rate (based on RCNLD) is likely to significantly understate the economic value of KCS's 50% ownership of the Rosebluff Lead in Lake Charles.

In addition, for older, depreciated railroad or other assets, RCNLD also may not well represent the economic value of the asset because it does not differentiate the economic circumstances of the individual supplier. A supplier with a more depreciated asset will receive

⁹⁸ I have recommended this approach in a past instance when I identified numerous economic factors that supported reliance on it as a reasonable and appropriate measure of the asset value for a new entrant in the specific circumstance. For example, in one past case the SSW Rate (based on RCNLD) based valuation produced a higher rate than the SSW Rate (based on CE) valuation approach for the specific trackage at issue in that case.

⁹⁹ Decision No. 3, slip op. at 1-2 (STB served June 29, 2016).

the same price as the other market participants but will earn more profits and therefore have a higher asset value. For instance, consider an Uber driving service where the price paid for a trip is identical regardless of the age of the vehicle. RCNLD would result in a lower compensation fee for the older car versus the newer car because of the higher level of depreciation costs are subtracted out for the older car. Said differently, a much larger profit is gained by the driver of an older, depreciated vehicle as compared to that of a newer vehicle with the same competitive price, which yields a higher economic value. Similarly, there may be differences in profit between the owner of an older home and a newer home given a prevailing rental rate in a market. Also, consider a fully depreciated railroad asset which under an SSW compensation rate (based on RCNLD) may provide very little (i.e. near zero) compensation for the capital component and only reimburse variable costs. Consequently, the differentiated economic circumstances of the individual suppliers in the market, *e.g.*, economies of scale and depreciated assets can lead to differing economic value of an asset.

If an SSW Compensation rate (based on RCNLD) cost-based valuation approach is proposed by BNSF a comparison to an SSW Compensation rate (based on CE) valuation approach and the market-based access fee (reported in Section V) will be important. Since the SSW Compensation rate (based on CE) valuation approach will lead to an artificially low rate (as described above) and further diminution of the economic value of KCS's 50% ownership share of the Rosebluff Lead, any SSW Compensation rate (based on RCNLD) that is lower than the SSW Compensation rate (based on CE) valuation approach, exacerbates the diminution of the economic value of KCS's asset. Further, the relatively higher market-based access fee demonstrates the substantially more robust economic opportunity and therefore higher value of KCS's trackage asset that a potential new entrant competitor would require. With this context, the selection of a regulatorily determined and understated SSW Compensation rate will be picking and choosing the winner and loser railroads (i.e. favoring BNSF).

V. COMPETITIVE RATE ANALYSIS FOR LYONDELL LAKE CHARLES

A. A Market-Based Access Fee based on Market-Based Reciprocal Switching Rates

The combination of robust customers and limited trackage is best characterized as the provision of direct access or a gateway to many high-value customers. As such, it is most reasonably represented by market-based reciprocal switching rates, the service historically

provided to BNSF, and which are commercially negotiated by willing buyers and sellers that represents the fair market value rate for the direct access or gateway to specialized customers that are often chemical and plastic industry customers.

To develop the market-based access fee for BNSF to pay KCS for direct access to Lyondell, I developed a haulage rate that is based on an analysis of market-based reciprocal switching rates to identify a comparable set of current real-world market-based reciprocal switching rates. The analysis selects geographic areas with similar economic conditions to the Lake Charles area, including larger railroad carriers, similar types of products, and access to a robust set of customers, among other factors. As discussed further below, the market-based access fee adjusts the market-based reciprocal switching rates comparable to Lake Charles to subtract an estimated switching cost for BNSF movement to Lyondell in Lake Charles.

The analysis relies on the most current reciprocal switching¹⁰⁰ rates available and agreed to by market participants, and as such are market-based negotiated rates.¹⁰¹ Reliance on market-based reciprocal switching rates as the foundation of the market-based access fee calculation best ensures that the fee is consistent with properly functioning markets and adequately considers and defers to market conditions, which are principles that BNSF has expressed as important to adhere to in regard to reciprocal switching access.¹⁰² As discussed above in Section, these reciprocal switching rates (adjusted to remove the switching costs) represent the economically appropriate compensation and sharing of the contribution that KCS would have negotiated with BNSF absent the forced access.

Specifically, the analysis included comparable market-based reciprocal switching rates that were agreed to and accepted between and among various Class 1 railroad carriers, including BNSF, UP, KCS, Norfolk Southern, CSXT Railway, as well as Canadian National and Canadian Pacific. As such, the parties involved are larger carriers who have relatively comparable stature

¹⁰⁰ KCS defines reciprocal switching as “a switching movement of cars from a plant or industry located on KCS to the point of interchange with connecting carriers or vice versa.” KCS, Switching and Terminal Tariff KCS 8100–E Revision 33, pg.11 “Application and Definition” available at https://www.kcsouthern.com/customer-resources/guidelines-regulations/accessorial-services-pdf/KCS-8100-E.pdf?language_id=1.

¹⁰¹ Even if reciprocal switch rates are not renegotiated frequently, the parties have the ability to have negotiated terms and conditions which would allow for the specific frequency of adjustment as well as reopening provisions through which to reset or adjust the rates over time and therefore are consistent with market-based rates agreed to by parties through negotiations.

¹⁰² Reciprocal Switching, EP 711 (Sub No. 1)(BNSF Comments Filed January 13, 2017).

and the reciprocal switching rates for commodities at customer locations were negotiated or agreed to in some manner and therefore reasonably represent market-based outcomes.¹⁰³ By including numerous railroads, a robust and large dataset of real-world market-based reciprocal switching rates underpins the Lyondell market-based access fee.¹⁰⁴ Specifically, as discussed below, there are nearly 2,000 customer rates included in the analysis.

In addition to selecting large rail carriers, the analysis of comparable real-world reciprocal switch rates includes approximately a dozen geographic areas with customers that have a reasonable overlap in similar types of products as those in Lake Charles. The trackage at issue in this proceeding provides access to many high-value customers located in the Lake Charles market area. As such, Lake Charles area customers have various higher unit rate and contribution margin products, including chemicals and plastics, as well as refined products, and transportation equipment, among others. Therefore, markets that included some subset of customers that shipped some of the same types of products were selected in the study. It was not necessary or feasible to have a precise one-to-one overlap in product or market characteristics but rather some commonality which influences rates in the area for the relevant products.

For example, numerous geographic areas near Lake Charles within the Louisiana/Alabama market area are included such as Baton Rouge, New Orleans, and Shreveport/Alexandria, as well as nearby Mobile, AL, and Pascagoula, MS. These geographic areas share many overlapping industries and products, with large proportions of chemical, plastics and petroleum products passing through those regions, often comprising 25% or more of the product mix for traffic originated or terminated. Other market areas include Texas

¹⁰³ BNSF discusses a reciprocal switch as an agreement with another rail carrier as related to a “movement of a loaded railcar from an industry located on one rail carrier to the point of interchange with a connecting linehaul carrier or vice versa, where: “[T]he plant or industry is open, by tariff or special agreement, to the connecting linehaul carrier.” BNSF Switching Book 8005-D, Issued March 6, 2020, Effective March 6, 2020, p. 1 at BNSF-LC2020-HC-0009750.

¹⁰⁴ My analysis does not include intermediate and inter-terminal switching rates from one rail carrier to another rail carrier. However, those rates are also robust and frequently have fees in the \$400 to \$515 /car range. See Union Pacific, Accessorial Charges, pg. 1, “Switching,” available at https://www.up.com/cs/groups/public/@uprr/@customers/documents/up_pdf_natedocs/pdf_up_cust-resource_qrg-matr.pdf, and 2) KCS, Switching and Terminal Tariff KCS 8100-E Revision 33, pg. 38, Type of Switch: Inter-terminal, pg. 39 Type of Switch “Miscellaneous Charges” available at https://www.kcsouthern.com/customer-resources/guidelines-regulations/accessorial-services-pdf/KCS-8100-E.pdf?language_id=1, and 3) BNSF, BNSF Switching Book 8005-D, pg. 2, “Inter-Terminal Switching” and “Intermediate Switching,” BNSF LC2020-HC-0009751, available at BNSF LC2020-HC-0009750-0009771.

geographic areas (Houston-Beaumont/Corpus Christi) and Midwest geographic areas (Davenport, IA, St. Louis, MO, Memphis, TN, and Toledo, OH). Texas frequently observes 25% or more of the comparable products to Lake Charles, while the Midwest is a bit lower and may achieve 10% or more.¹⁰⁵ Exhibit 4 presents summary statistics of commodity types for the geographic areas analyzed.

My market-based access fee analysis excludes reciprocal switching rates for distinct products that do not reasonably represent the mix of products shipped by Lyondell or other Lake Charles area customers.¹⁰⁶ These products, such as agriculture products (e.g. grain and other products) as well as lumber products often have a very low rate due to the distinguished economic circumstances that do not apply to Lake Charles.¹⁰⁷

Lastly, I also include numerous geographic areas in my analysis that are major gateways or competitive lanes that BNSF frequently references in its normal course of business documents, including New Orleans, LA; Chicago, IL; East Saint Louis, MO; Memphis, TN; Houston, TX; Eagle Pass, TX and Fort Worth, TX.¹⁰⁸ Oftentimes when evaluating its rates and undergoing competitive negotiations and bids, BNSF compares actual and proposed rates along

¹⁰⁵ While the Midwest locations offer a different set of comparisons, they are high density market areas with many customers that also traffic in high value transportation equipment as Lake Charles. See Exhibit 4 for an analysis of the product mixes in each geographic area that reaffirm the reasonably similar products in Lake Charles.

¹⁰⁶ I attempted to exclude these rates from the comparable reciprocal switching rates, where possible, however the extent to which these rates are not excluded from the analysis they are typically lower and therefore conservatively reduce the comparable rate calculated.

¹⁰⁷ [[REDACTED]] at BNSF-LC2020-HC-0009765 and BNSF-LC2020-HC-0009771, available at BNSF-LC2020-HC-0009750-71.

¹⁰⁸ BNSF, [[REDACTED]] at BNSF-LC2020-HC-0003368 available at BNSF-LC2020-HC-0003354-79.

with the major gateways for chemical and plastics customers, including Lyondell.¹⁰⁹ These gateway locations are generally accessible via KCS's network.¹¹⁰

Figure 2 below summarizes the market-based reciprocal switching rates for the geographic areas studied and used to develop the market-based access fee. In aggregate, the rates included represent the most current rate available and agreed to by parties located in more than a dozen geographic areas served by numerous large railroad carriers and nearly 2,000 customer locations. Across the geographic areas studied, the market-based reciprocal switch rates range from \$283 - \$661 per car, with a weighted average rate of nearly \$500/car (\$490/car).

¹⁰⁹ ||

|| available at BNSF-LC2020-HC-0003947-0003390.

¹¹⁰ Eagle Pass, TX is accessible via a short line railroad connected to KCS's network. Our Network, accessed on December 28, 2020, available at <https://www.kcsouthern.com/en-us/why-choose-kcs/our-network/network-map#>.

Figure 2: Reciprocal Switching Rates for Geographic Areas Comparable to Lake Charles, LA¹¹¹

Region	Average Reciprocal Switching Rate (\$/Car)	Number of Railroads Performing Reciprocal Switching	Number of Class 1 Carriers	Number of Reciprocal Switching Rate Customers
<i>UP/KCS Lake Charles, LA</i>				
Lake Charles, LA	\$350	2	2	2
<i>Louisiana/Alabama</i>				
Baton Rouge, LA	\$555	3	3	62
Mobile, AL	\$444	3	5	42
New Orleans, LA	\$416	3	6	97
Other Louisiana	\$349	2	2	23
<i>Texas/Oklahoma</i>				
Dallas-Ft. Worth, TX	\$431	3	3	28
Houston-Beaumont-Corpus Christi, TX	\$341	3	3	180
Tulsa, OK	\$295	2	2	10
<i>Other Regions</i>				
Chicago, IL	\$585	6	8	736
Davenport-Moline, IA-IL	\$283	3	4	20
Memphis, TN	\$492	5	6	161
St. Louis, MO	\$409	4	7	468
Toledo, OH	\$661	2	3	79
Wichita, KS	\$295	2	2	17
<u>Reciprocal Switching Rate Statistics (\$/Car)</u>				
Minimum:	\$283			
Average:	\$422			
Customer-Weighted Average	\$490			
Maximum:	\$661			

Notes and Sources:

- ¹ See Carey Opening WP "Priv Exhibit 5 Class 1 Reciprocal Switching Rate analysis.xlsx."
- ² There are three Class 1 carriers in Lake Charles, LA: KCS, UP, and BNSF. KCS and UP are listed here, while BNSF is not, owing to the exclusion of the BNSF/UP agreement, which is not representative of a commercially-negotiated switching rate.
- ³ Customers are the individual companies accessed through the reciprocal switching. The switching rate paid to access that customer may be set by the regional switching rate for a specific commodity, customer, or some combination of the aforementioned methods.

As Figure 2 above shows, most regions include reciprocal switch rates at specific locations at the higher end of the rate range. For example, in the Louisiana/Alabama market area nearest to Lake Charles, weighted average switch rates range from \$349 to \$555 per car. For other market areas in Texas, reciprocal switching rates range from \$341/car (Houston-Beaumont/Corpus Christi) to \$431/car (Dallas-Ft. Worth). For other regions, particularly in the Midwest, higher rates are achieved, including approximately \$409/car (East St. Louis, MO), \$492/car (Memphis, TN), \$661/car (Toledo, OH), and \$585 (Chicago, IL). Exhibit 5 contains

¹¹¹ See Exhibit 5.

the detailed tables with the specific reciprocal switch rates agreed to by each of the large railroad carriers for relevant product customers in each of the geographic areas studied. In reviewing Exhibit 5, KCS and the other Class 1 railroad carrier switching rates to all customers are denoted. Additionally, there are numerous instances in which KCS' reciprocal switching rates charged to BNSF for chemical and plastic products that are greater than the \$400/car rate including the following: Quality Distribution (with chemical industry) (\$525/car) in East St. Louis, MO; Quality Carriers (dba Transplastics) (\$525/car) in Kansas City, MO; and Inter-terminal switching rates to multiple plastic customers at (\$745/car) in Baton Rouge, LA. Additionally, but not exhaustively, KCS charges other railroads even higher rates, such as multiple plastics companies (\$715/ car) Baton Rouge, LA.¹¹² [REDACTED]

[REDACTED] UP charges above-average switching rates at Solvay USA, among others, in Chicago Heights, IL (\$850/ car), multiple customers in New Orleans, LA (\$700/car), and Dallas, TX (\$595/car).¹¹³

On occasion, BNSF attempts to limit the switching rate that it will absorb and requires customers to pay for switch rates above [REDACTED]
[REDACTED]
[REDACTED]¹¹⁵ In instances where BNSF applies a limitation, it frequently only applies the maximum switch absorption to the destination switches (e.g. BNSF contracts with Total & Bayport Polymers, Styrolution, and Westlake Polymers).¹¹⁶ Moreover, the market-based

¹¹² KCS Switching and terminal Tariff KCS 8100–E Revision 32.

¹¹³ Class-1 carriers which do not operate in Lake Charles also charge these high switching rates. For example, CN at Stupp Corp in Baton Rouge (\$1,000/ per outbound car), as well as NS and CSXT for multiple customers in Toledo, OH (\$750/ per car). *See* Exhibit 5 for a complete list of customers and switching charges considered.

¹¹⁴ [REDACTED]
[REDACTED]
[REDACTED] available at BNSF-LC2020-HC-000900.

¹¹⁵ [REDACTED] at BNSF-LC2020-HC-0003378 available at BNSF-LC2020-HC-0003354-79.

¹¹⁶ It is my understanding that it doesn't typically apply to the origin for these customers. *See* Carey Opening WP BNSF Bid discovery email 11.30.2020.pdf

reciprocal switching rate is being paid by one or both of the entities involved in the transaction (i.e. BNSF or the customer).¹¹⁷

To develop my market-based access fee, I start with the customer weighted average of the market-based reciprocal switch rates comparable to Lake Charles equal to \$490/car (that are the direct outcomes of agreements and negotiations by parties for comparable products and customer characteristics as Lake Charles.) This comparable market-based reciprocal switch rate for Lyondell Lake Charles is then adjusted to remove an estimated switching cost for the Lake Charles area and specifically for BNSF movements to Lyondell to isolate the contribution from the direct access to the customer.¹¹⁸ The resulting market-based access fee is the amount that KCS would require from BNSF in a market-based approach to compensate KCS for direct access to Lyondell for the lost opportunity contribution to KCS's network costs, to support revenue adequacy, and minimize the diminution in KCS's value of its 50% ownership of the Rosebluff Lead trackage in Lake Charles.¹¹⁹ For convenience, the full equation is shown below:

$$\begin{array}{lcl} \text{Market-Based}^{120} & = & \text{Average} & - & \text{Switching Cost} \\ \text{Access Fee} & & \text{Comparable Market-based} & & \\ & & \text{Reciprocal Switching Rate} & & \end{array}$$

With this adjustment, I have derived a market-based access fee based on the reciprocal switching rates from real-world market outcomes (adjusted to remove the switching cost) to be used as a going-forward competitive rate for BNSF to pay KCS to directly access Lyondell (and potentially), other customers, in Rosebluff Lead.¹²¹ The market-based access fee associated with

¹¹⁷ A similar circumstance arises for KCS switching rates.

¹¹⁸ All switching and other URCS variables costs are included for the BNSF movement to Zone 2 where Lyondell operates.

¹¹⁹ The market-based rate would only contribute to, not totally make up for, KCS's shortfall in achieving systemwide revenue adequacy.

¹²⁰ In my prior statement I used slightly different terminology. I also relied on a narrower set of comparable rates between BNSF and KCS. Lastly, here I reduce the comparable market-based reciprocal switching rate by the estimated switching costs incurred by BNSF for reasons discussed above. In my prior statement, I recommended the comparable market-based reciprocal switching rate be reduced by the SSW rate based on RCNLD, which was not conducted by KCS

¹²¹ The switching cost is derived from URCS for 2018 for the BNSF originating move to Zone 2 of the Rosebluff Lead, where Lyondell operates. The historical cost measure may differ from the BNSF's future

BNSF movements to Lyondell in Zone 2 is equal to $[[\text{redacted}]] = \$490 - [[\text{redacted}]]$.¹²²

The market-based access fee should be paid to BNSF to compensate KCS for the direct access to Lyondell via its owned trackage in Lake Charles.¹²³

Importantly, the recommended market-based access fee for future BNSF movements does not address past economic harm to KCS, including the historical lost opportunity profit forgone for more than two decades. As discussed above in Section IV.A. the artificially low rate and forced switching access provided to BNSF in Lake Charles enabled BNSF's carload traffic movements to increase dramatically. Specifically, BNSF moved $[[\text{redacted}]]$ carloads for Lyondell and for all customers in the Lake Charles area, respectively since 2010.¹²⁴ With a market-based access fee equal to $[[\text{redacted}]]$ car, the total fee estimate BNSF would owe KCS can be calculated as equal to $[[\text{redacted}]]$,¹²⁵ respectively, for Lyondell and the entire Lake Charles movements by BNSF, respectively.¹²⁶

My proposed market-based access fee is conservative as compared to an alternative fee calculation that directly aligns with KCS's shortfall in achieving systemwide revenue adequacy, as measured by the revenue shortfall allocation method (RSAM). KCS's recent historical RSAM of 384%¹²⁷ for the 2016-2019 period is the average markup that KCS requires to charge all its

costs due to the new operating plan for BNSF to access Lyondell. To the extent that BNSF reports updated cost information, the market-based access fee can be modified.

¹²² See Carey Opening WP "Switch Cost Summary Statistics BNSF 2018.xls." Dr. Neels conducted the URCS cost calculation.

¹²³ I recommend a rate reopener every ten years to escalate the rate, up or down, consistent with the market conditions for the same basket of locations used in this analysis.

¹²⁴ See Exhibit 3.

¹²⁵ $[[\text{redacted}]]$

¹²⁶ I understand that the Board has authority to issue reparations. See for example, 49 USC Section 11704B. The calculation is a simplified estimate of the economic harm to KCS for the last decade only. In addition, the calculation does not quantify the economic harm associated lost volumes or the price erosion on its remaining traffic. Further, this estimate is unadjusted for interest commonly applied to bring economic damages (i.e. lost profits) forward to today's dollars.

¹²⁷ Surface Transportation Board's Simplified Standards for Rail Rate Cases,

2019 RSAM And R/VC>180 Calculations EP 689 (Sub-No. 12), slip op. at 3 (STB served December 30, 2020) .

“potentially captive” traffic in order to earn adequate revenues.¹²⁸ The alternative RSAM-based fee multiplies KCS’s RSAM (384%) and the URCS costs associated with BNSF operating over the Rosebluff Lead to serve the Lyondell traffic in Zone 2 [REDACTED] to yield a rate of [REDACTED]. The RSAM-based fee is the customer-specific rate that KCS would need to charge BNSF to achieve revenue adequacy. Of course, the RSAM-based fee is a customer-specific rate that would only contribute to, not totally make up for, KCS’s shortfall in achieving systemwide revenue adequacy.

B. Analysis of BNSF and UP customer-specific contributions support the reasonableness of the market-based access fee estimate based on market-based reciprocal switch rates

A secondary analysis of the contribution¹²⁹ to the rest of the railroad network was conducted for BNSF and UP’s movements for customers in the Lake Charles area as well as similar areas to ensure the reasonableness of the market-based access fee to compensate KCS for the forgone contribution to the rest of its network associated with the diminution in the value of its 50% ownership of the Rosebluff Lead trackage in Lake Charles. In addition, the contribution margin analysis provides insights into the competitiveness of the Lake Charles and comparable areas and contribution related impacts from additional railroad competition. Railroads frequently evaluate and consider the rate, revenue and contribution margin, and profitability for the entire movement (and set of movements) for each customer when negotiating its rates.¹³⁰

Specifically, I reviewed the rate-setting analyses that BNSF and UP railroads conducted in the normal course of business for purposes of the rate negotiation process with customers in

¹²⁸ 49 U.S.C. § 10704(a)(2). “Potentially captive traffic is defined as all traffic priced at or above the 180% R/VC level, which is the statutory floor for regulatory rail rate intervention.

¹²⁹ The railroads generally refer to contribution is revenue less variable costs for each movement. Thus, the contribution can be described in numerous ways, such as contribution, margin, profit or rents from the specific movement identified and which represents the addition monies that can contribute to (or be allocated to) the rest of the railroad network.

¹³⁰ When considering their LyondellBasell proposal, UP notes contribution and revenue for groups of movements originating in multiple plants and terminations. They make similar observations for all movements on the contract. *See* UP, [REDACTED] available at Carey Workpapers-HC 00004 (LyondellBasell Bid 2019 - VP Review 11-15-19 HC.pdf). BNSF also performs similar analysis, for example analyzing their Styrolution proposal by all movements and specific groups of destinations and origins. [REDACTED] at BNSF-LC2020-HC-0003375 available at BNSF-LC2020-HC-0003354-79.

Lake Charles and similar locations. [REDACTED]
[REDACTED]
[REDACTED] These railroad rate-setting analyses include final and near-final rate bids that were submitted to the customers (status of contract award is noted below in Figure 3).

For the customer-specific rail rate-setting analyses that the BNSF and UP conducted in the normal course of business, I quantified the contribution margins percentages (i.e. percentage profit margin) that each railroad estimated for the specific customers and movements for which it was negotiating rates. Specifically, from my review of BNSF's rate-setting analyses, as shown in Figure 3, BNSF's average contribution margin percentages ranged from [REDACTED]

¹³¹ The relatively [REDACTED] in contribution margin percentages accepted by both BNSF and UP for Lake Charles, LA and other comparable locations is reasonable and expected due to the nature of competitively negotiated rates which can result in a variety of specific and distinct market outcomes based on the range of specific factors, such as market opportunity related, counterparty determined, and negotiation specific etc. In addition, in a variety of railroad factors come into play as well including ensuring scale economies of networks and other operational consideration. In the end, the parties negotiated and agreed to the exact split of producer surplus that they both found to be better than walking away. As such, these negotiations are competitive in nature and the agreed to rates are reasonably commensurate with competitive market outcomes.

Figure 3: Contribution Margin Percentages from for Recent BNSF and UP Rate Setting Analyses for Customers in Lake Charles, LA and other Comparable Geographic Areas^{132,133}

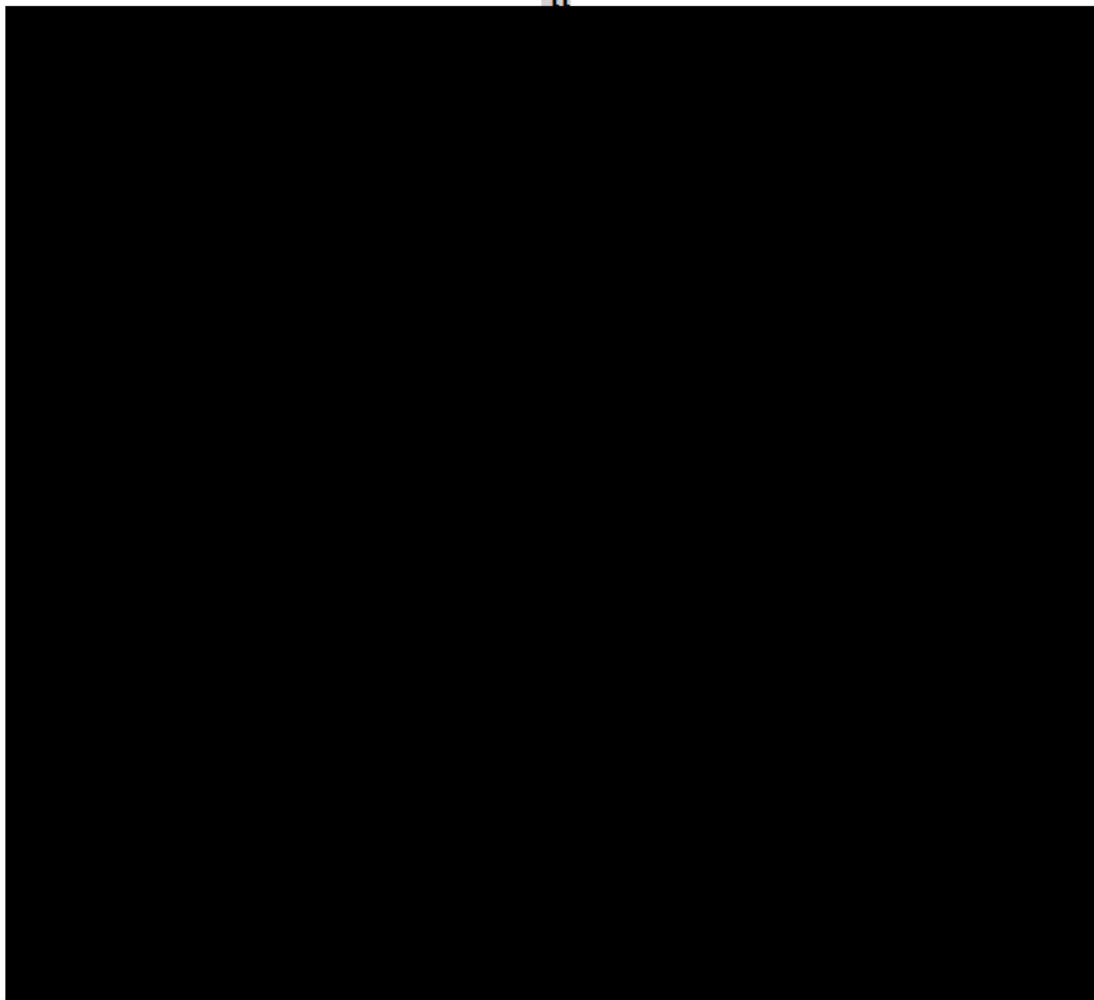


Figure 3 also reports contribution margins for movements to competitive destinations (“Open Movements”) and movements to sole-served destinations (“Closed Movements”), when such

¹³² Railroad bid data did not always report movements by open and closed customers. [REDACTED]

[REDACTED] at BNSF-LC2020-HC-0003364 available at BNSF-LC2020-HC-0003354-79.

¹³³ Some of the bids reported movements to storage in transit facility (SIT). However, these bids generally did not report final movements to the customer location. Traffic moved to SIT is generally later moved to customer destinations and is traffic upon which additional contribution is reasonably expected to be earned.

delineation was included in the railroad bid analysis. For this data, the contribution margin percentages range from [[REDACTED]] for movements to competitive destinations and solely served destinations, respectively. These real-world outcomes demonstrate that the contribution margin for sole-served destinations is [[REDACTED]] than for competitively served destinations.¹³⁴ Simply put, more railroad competitors lead to lower contribution margins (i.e. erosion of profits), which is the competitive pressure that BNSF has exerted in Lake Charles.

The contribution margin data shows the highly competitive nature of Lyondell Lake Charles which reports [[REDACTED]]

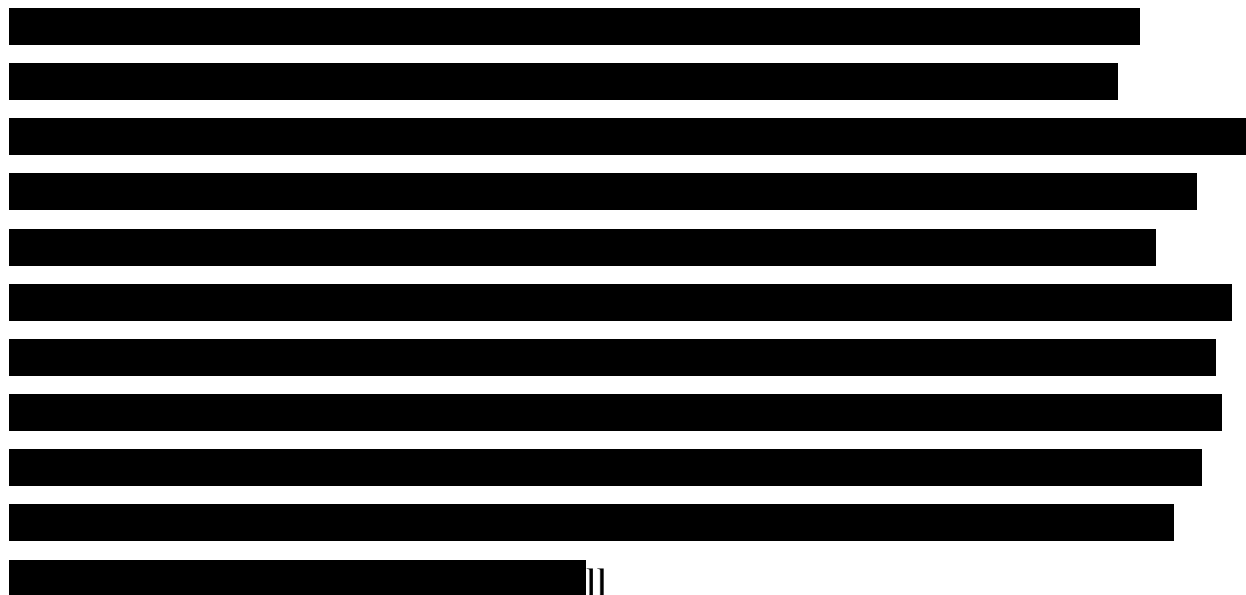


Exhibit 6 contains the detailed tables with the specific contribution margins for each of the BNSF and UP customers that were provided in discovery.

The contribution margins for the BNSF and UP customers detailed in Figure 3 (and Exhibit 6) reasonably approximately the [[REDACTED]]

¹³⁴ Notably the [[REDACTED]] percentage point lower contribution margin to sole served destinations provides a real-world example of competitive pressures to rates and margins which mimics the circumstances KCS has faced and resulted in the diminution of its 50% ownership of the Rosebluff Lead.

¹³⁵ The BNSF bids to competitive movements from Lake Charles also observed an approximately [[REDACTED]] contribution margin even though BNSF was not selected by Lyondell to serve the traffic. See Exhibit 6.

¹³⁶ See Carey Opening WP “Bid analysis - Open and Close Contribution Margin.xlsx”

[REDACTED] 137

Moreover, net revenue has grown appreciably since 2015 with [REDACTED]
[REDACTED] 138 Further, efforts by BNSF to increase contributions on its
chemical and plastics sector business, achieved contributions as high as [REDACTED] for chemical and
plastics customers, where the company notes greater contribution margins are observed with the
largest percentage of closed customer locations (i.e. sole-served without competitive access). 139 140

For example, for [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] 142

137 [REDACTED]
[REDACTED] at BNSF-LC2020-HC-0003355 available at
BNSF-LC2020-HC-0003354-79. Certain customers revenue and rates negotiated in contracts may diverge
from [REDACTED]

[REDACTED] at BNSF-LC2020-HC-0003378 available at BNSF-LC2020-HC-0003354-79.

138 [REDACTED]
[REDACTED] at BNSF-LC2020-HC-0003355 available at BNSF-LC2020-HC-0003354-79.

139 [REDACTED]
[REDACTED] at BNSF-LC2020-HC-0003364 available at BNSF-LC2020-HC-0003354-79.

140 Separately, [REDACTED]
[REDACTED] See exhibit 2 for further discussion. BNSF, [REDACTED]
[REDACTED] at BNSF-LC2020-
HC-0000993, available at BNSF-LC2020-HC-0000991-1003.

141 [REDACTED]
[REDACTED] at BNSF-LC2020-HC-0003379 available at BNSF-LC2020-HC-
0003354-79.

142 This sentence references the existing contract in the first of half of 2020 where BNSF had a [REDACTED]
[REDACTED]

In addition to analyzing contribution margins percentages used by BNSF and UP in the railroads' rate setting, I also analyzed the contribution margins on a \$/car basis as a reasonableness check on the percentage of profit split between the market-based access fee as compared to the total contribution for the railroad customer movements.¹⁴³ Notably, the \$/car contribution margin, along with revenue and cost per car statistics can vary among customers or each railroad depending on the economic circumstances of the movement, [[REDACTED]]

[[REDACTED]]¹⁴⁴

For Lyondell, BNSF's contribution margin on a \$/car basis for the rate bids included in the bid analyses approximated [[REDACTED]] per car for all movements that were included in BNSF's rate-setting analysis that was agreed to by both parties in their commercial negotiations.¹⁴⁵ As such the market-based access fee based on real-world market-based reciprocal switch rates approximating [[REDACTED]], represents a modest proportion of the overall revenue contribution of the moves for Lyondell, [[REDACTED]]¹⁴⁶ This statistic demonstrates the conservativeness of the appropriate real-world market-based access fee which provides KCS a more appropriate share of the contribution margin to be able to contribute to its network. Lastly, BNSF's Lyondell bid analysis for movements to sole served destinations (i.e. for which it was selected) reported the [[REDACTED]] which also indicates sufficient revenue to contribute to KCS's network.

[[REDACTED]] at BNSF-LC2020-HC-0003364 available at BNSF-LC2020-HC-0003354-79.

¹⁴³ [[REDACTED]]
[[REDACTED]] See Carey Opening WP BNSF Bid discovery email 11.30.2020.pdf

¹⁴⁴ [[REDACTED]]
[[REDACTED]]

¹⁴⁵ See Exhibit 6, "Contribution Margin Summaries for BNSF & UP Selected Chemicals and Plastics Bids." [[REDACTED]]

[[REDACTED]]
¹⁴⁶ [[REDACTED]]

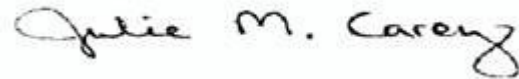
VI. CONCLUSION

In conclusion, for the many reasons discussed throughout this report, I recommend a market-based access fee should be used as the compensation approach that BNSF should pay KCS for use of the Rosebluff Lead and direct access to Lyondell. Only by using such a market-based fee will KCS be most closely placed in the shoes in which it otherwise would have been if KCS and BNSF negotiated a market-based rate for BNSF to access Lake Charles area customers. The real-world market-based access fee I calculate and recommend in this case is based on nearly 2,000 comparable market-based reciprocal switching rates to the Lake Charles area (adjusted to subtract an estimated switching cost for BNSF movement to Lyondell in Lake Charles). The market-based access fee compensation approach gives due consideration to the priority of efficient competitive market outcomes and revenue adequacy-based requirements, consistent with the STB policy imperatives. This approach of shared profits between BNSF and KCS based on negotiated reciprocal switching rates (adjusted to remove the switching cost) is superior to the imposition of a regulatorily determined rate estimate for this specific case. Only with such an appropriate market-based access fee will further erosion of the value to KCS's trackage cease and an appropriate sharing of contribution between BNSF and KCS will be achieved such as that which would have occurred absent government-mandated forced access.

VERIFICATION

I, Julie M. Carey, declare under penalty of perjury that I have read the foregoing Verified Statement, that I know the facts asserted therein, and that the same are true as stated. Further, I certify that I am qualified to and authorized to submit this Verified Statement.

Executed on January 26, 2021

A handwritten signature in black ink that reads "Julie M. Carey". The signature is written in a cursive style with a large, looped "J" and a stylized "C".

Julie M. Carey

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

FD 32760 (SUB-NO. 46)

**BNSF RAILWAY COMPANY
– TERMINAL TRACKAGE RIGHTS APPLICATION –
THE KANSAS CITY SOUTHERN RAILWAY COMPANY AND
UNION PACIFIC RAILROAD COMPANY**

JULIE M. CAREY EXHIBITS

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JULIE M. CAREY

MANAGING DIRECTOR

Julie M. Carey is a Managing Director at NERA Economic Consulting. She has substantial experience as an energy economist, providing expert evidence in energy related commercial and regulatory disputes, as well as international arbitrations. She has more than 20 years of experience addressing economic issues in oil and gas, natural gas liquids, pipelines, power, renewables, and railroad sectors. Ms. Carey is recognized as a leading energy expert (2019 and 2020) and a leading arbitration expert (2020) by Who's Who Legal.

In addition to her expert consultancy assignments, Ms. Carey is also an adjunct professor at Georgetown University where she teaches a graduate level course in energy economics and policy, which includes instruction on economics of energy products and transportation, as well as regulatory and competition economics.

Ms. Carey provides expert consulting and testifying services on energy economic issues in commercial disputes before U.S. federal and state courts, and before arbitration panels in the U.S. and internationally (e.g. many international arbitration venues). She also routinely assists energy regulators in the U.S. and Canada (U.S. Federal Energy Regulatory Commission (FERC), and the Canadian Energy Regulatory (formerly the National Energy Board of Canada), and many other state and provincial regulatory agencies in the U.S. and Canada.

Within her commercial dispute work, Ms. Carey has been involved in many claims of breach of contract including: crude oil, natural gas, refined products, oil pipeline transportation, coal, power, renewable, and railroad transportation. She has also been involved in cases concerning partnership disputes, delayed plant operations, diminished value claims, replacement power, antitrust and manipulation claims, clean air act, qui tam, intellectual property, fiduciary duty, and bankruptcy, among others. Ms. Carey has substantial experience with economic damages (historical and future lost profit analyses) and conducts valuation analyses. She has assessed and quantified economic damages and valuations in dozens of cases which include breach of contract, antitrust, class action, and other types of disputes.

Ms. Carey has substantial expertise in economic analyses of energy and transportation markets. She routinely conducts economic analyses of energy and transportation markets to understand historical and forecasted market conditions (supply, demand and prices), as well as to evaluate competition, claims of market manipulation, and other anticompetitive acts. She has conducted these analyses many dozens of times for the purposes of the regulatory approval of mergers and acquisitions, market-based rate authority, market rules, negotiated rates, as well as within investigations and commercial disputes. Her work includes evaluation of the reasonableness of rates and whether market participant bidding, trading and other behavior is discriminatory or otherwise manipulative, and whether prices reflect competitive market prices. Ms. Carey's work includes a variety of other regulatory economic analysis including affiliate

relationships, cost of service and forward-looking costs, among others.

Ms. Carey also has experience with environmental analysis (e.g., greenhouse gases and other types of emissions) and macroeconomic modeling (i.e., jobs, GDP, taxes) in which she studies the impact of energy infrastructure construction and operations on the economy for regulatory and business decision-making.

EDUCATION

- **Pennsylvania State University**
Doctoral Studies Program Coursework/M.A., Economics, 1993
- **Allegheny College**
Bachelor of Science, Economics, 1991

PROFESSIONAL EXPERIENCE

2020-Present	NERA Economic Consulting – Managing Director
2017-2019	NERA Economic Consulting - Director
2016-Present	Georgetown University (Washington, DC) - Adjunct Professor
2011-2017	Navigant Consulting, Inc. (Washington, DC) - Director
2004-2010	LECG, Inc. (Washington, DC) - Principal
2000-2004	FTI Consulting, Inc. (Washington, DC) - Director, Manager
1996-2000	LECG, Inc. (Washington, DC) - Economist, Senior Associate, Associate
1994-1996	American Public Power Association (Washington, DC) - Research Analyst

CERTIFICATIONS, MEMBERSHIPS, AND AWARDS

- Leading Energy Expert by Who's Who Legal (2019 and 2020)
- Leading Arbitration Expert by Who's Who Legal (2020)
- International Association for Energy Economists
- U.S. Association for Energy Economists

SELECTED ENERGY PROJECT EXPERIENCE

Railroad

- Expert report in regulatory proceedings addressing appropriate rate to use for a trackage rights fees, including numerous valuation methodologies and other economic and regulatory analyses. (STB)
- Expert report and expert testimony in commercial arbitration regarding multiple breach of contract claims for joint-line transportation service, and financial, economic and regulatory considerations regarding the contracts, negotiations and the financial impact as well as economic damages. (AAA arbitration)
- Expert consultation analyzing economics of containerized freight transportation, including intermodal rail and competition with alternative transportation modes in a transportation contract dispute and claims of anticompetitive behavior for a commercial arbitration.

- Expert report in STB proceeding regarding the potential introduction of indirect competition analyses within market dominance determinations for coal transportation rates to utility generation facilities.
- Expert evidence in numerous regulatory proceedings involving rail transportation rate disputes for coal, including evaluation of appropriate regulatory economic approach to assess the reasonableness of a rate, long term forecasts of coal deliveries, coal-power plant heat rate and performance, transportation rates (all modes), and revenue attribution methodologies for shared facilities.
- Expert reports in a coal contract commercial dispute analyzing economic damages and replacement coal source and transportation alternatives.

Oil and Gas

- Expert report and economic analysis in an ongoing matter to provide economic evidence regarding potential competitiveness of refined product pipeline markets (gasoline, distillates, fuel oil, jet fuel) for a proceeding before the FERC involving a complaint regarding the reasonableness of current rates and continuation of its market-based rate authority. This work includes evaluation of product and transportation (pipeline, waterborne, trucking and rail), competition, and competitive prices for U.S. and international transactions of refined products and transportation.
- Expert report and economic analysis of wholesale propane markets, supply and demand and potential transportation alternatives for propane in the Midwestern U.S. in a claimed discrimination by a shipper on an NGL pipeline.
- Economic consulting and expert report before the NEB regarding potential of discriminatory behavior that can arise from an unregulated affiliate of a regulated oil pipeline and other economic issues pertaining to a crude oil pipeline including evaluation of appropriate code of conduct. The economic analysis includes evaluation of substantial quantities of NGL - butane and other oil products injections into the pipeline system and the impact on the quality and financial harm and economic damages for the diminution of crude oil value.
- Expert consulting in a regulatory investigation into the reasonableness of market prices paid for natural gas purchases and bidding behavior of certain natural gas fired power generation facilities made during the 2013/2014 winter often referred to as the polar vortex. This work involved the eastern U.S markets.
- Expert consulting in a crude oil product contract dispute for a commercial arbitration to conduct economic analysis of crude oil markets, pricing, and alternative transportation economics (rail, truck, waterborne, and pipeline). This work involved California and international markets (including Ecuador (Oriente), Alaska and Western Canada.)
- Expert consulting in a refined product transportation contract dispute involving economic analysis of rail, truck, and pipeline transportation. This work involved the midwestern and Gulf Coast regions.
- Economic and competition analyses in numerous regulatory proceedings pertaining to refined petroleum product, crude oil natural gas liquids and transportation markets for oil pipelines market-based rate authority. This work includes analysis of product and geographic markets and the evaluation of origin and destination market, analysis of refined petroleum product and crude oil markets and transportation economics (rail, truck, waterborne, and pipeline) throughout most U.S. markets, Canada and many other international markets and analysis of competitive prices and market concentration.
- Expert report and testimony in an international arbitration regarding economic analysis of crude oil markets (Western Canadian and global markets), economics of conventional and unconventional oil and gas production resources, and the potential causal linkage of falling crude oil prices since 2014

and impact thereof on the energy construction industry and certain companies located in Western Canada.

- Expert consulting providing economic analysis of the competitiveness of crude oil transportation market in Western Canada to evaluate competition within pipeline markets (including railroad competition) before the NEB. This work also included economic analysis of the negotiations process and negotiated rates for new transportation contract sales to determine if the process was competitive and the rates were consistent with fair market value prices.
- Expert consulting in a claimed breach of a refined petroleum products contract in a commercial arbitration for a U.S. refinery involving economic analysis of crude oil and refined product markets, as well as rail, truck, waterborne and pipeline transportation economics and economic damages.
- Expert consulting assisting the Canadian Competition Bureau (CCB) in an investigation of potential energy market manipulation within the wholesale natural gas liquids product markets and price spikes, pertaining to propane. This work includes market analysis and econometric analysis to evaluate whether the actual market prices reflect competitive market prices (i.e., consistent with supply, demand, prices, constraints, etc.) or if manipulative or anticompetitive behavior occurred. This work included economic analysis of product and transportation markets (including pipeline, railroad, and trucking).

Power and Renewables

- Expert economic analysis and damages for a claim of tortious interference and unfair competition in wholesale solar panel market in the U.S.
- Expert reports and testimony regarding competition in U.S. wholesale power markets and impact to coal producers in the Powder River Basin (PRB). Analysis of generating resources economics (units, purchases and sales), short run marginal costs of generating units and least cost economic dispatch and inter-fuel competition, such as natural gas and renewables, within ISO and non-ISO areas. Evaluation of generating unit commitment designations and bidding and other market rules. Statistical analysis of transmission constraints and analysis of recent and proposed transmission expansions and the impact on geographic scope of competition.
- Expert for a North American ISO regarding wholesale power markets, addressing economics transition away from coal, including the decommissioning of coal-fired generating units and conversion of other coal-fired generating units to natural gas.
- Expert evidence and consulting in many matters related to competition within wholesale electricity markets for regulatory approval of mergers and acquisitions and market-based rate authority. This work includes market power screens and delivered price test analyses and analysis of product markets (energy capacity and ancillary services products) as well as geographic markets (including within ISO and non-ISO areas).
- Expert consulting regarding a joint venture/ joint ownership contractual arrangement and the financial impact to ratepayers and counterparties from a bankruptcy of one of the parties. Additional analysis of historical benefits derived from the arrangement as well as other regulatory and market analyses.
- Expert report to respond to quantum issues associated with a \$1 billion economic damage claim in an energy contract dispute in an international arbitration. In addition, economic analysis was conducted on the market (supply, demand and pricing) and the claimant's commercial activities pertaining to the contractual negotiations as.
- Expert reports and expert testimony analyzing economic and environmental analysis of the greenhouse gases (GHG) impact from the construction and operation of a new coal terminal export

Julie M. Carey

facility and downstream power markets for regulatory approval. This work included long term market and economic analysis of the elasticity of demand of coal, forecast of GHG emission and other energy market impacts within downstream energy markets (U.S. and Pacific Basin).

- Expert consulting and economic damages analyses in a dispute regarding the failed performance of a steam generator turbine in an ICC international arbitration (for California power plant). The damages claim was approximately \$7 billion. This work included economic theory and quantification of damages under a benefit of the bargain and rescission damages theories as well as evaluation of long term energy forecasts, economic performance and replacement power purchases.
- Expert testimony regarding a claim of economic damages (past and future) associated with the alleged breach of a power purchase agreement within an international arbitration. This work included analysis of the appropriate economic theory of damages, quantification of economic damages and energy market related analysis.
- Expert report in an international arbitration providing an analysis of the Chinese and global solar panel market, reasonableness and competitiveness of the sales negotiations and negotiated prices, market value of solar power products and other valuation related issues. The dispute surrounds the performance of numerous agreements to acquire, construct and operation numerous PV manufacturing production lines.
- Expert consulting regarding antitrust claims regarding the solar panel manufacturing industry. This work included economic analysis of the potential anticompetitive behavior and a valuation analysis of a solar panel company, including the development of a discounted cash flow analysis analyzing the future cash flows and net present value of the enterprise.
- Expert testimony regarding the impact of a proposed wholesale power market rule regarding the transmission allocation among market participants, incentives for new entry, and an evaluation of economic efficiency and potential market power within the wholesale electricity market.
- Expert report regarding past and future economic damages and economics of the silane gas market and supply, demand and pricing in the solar power panel market in a contract dispute before a bankruptcy court.

SELECTED EXPERT AFFIDAVITS AND TESTIMONY

FERC Docket Nos. OR18-7-002, et al. (Consolidated), Epsilon Trading, LLC, Chevron Products Company, and Valero Marketing and Supply Company v. Colonial Pipeline Company, In Market-Based Rate Proceeding, Prepared Answering Testimony of Julie M. Carey, January 24, 2020; Prepared Answering Testimony, April 6, 2020. Trial Testimony (December 3, 4 and 7-9, 2020)

FTC v. Peabody Energy Corporation and Arch Coal, Inc., Civil Action No. 4:20-cv-000317-SEP before the U.S. District Court Eastern District of Missouri, Expert Report of Julie M. Carey (May 29, 2020), Response Report (June 19, 2020), Deposition Testimony (June 29, 2020), Trial Testimony (July 21, 2020).

FERC Docket No. OR20-5-000, NGL Supply Wholesale, LLC v. Phillips 66 Pipeline LLC and Phillips 66 Company, Affidavit of Julie M. Carey, January 2, 2020.

In the Matter of Arbitration, under the London Court of International Arbitration (“LCIA”) Arbitration Rules, LCIA Case No. 183933, Between Hemlock Semiconductor Pte. Ltd, Claimant and Yingli Green Energy International Trading Limited, Respondent, Expert Report, May 9, 2019.

Surface Transportation Board (“STB”), FD 32760 (Sub-No. 46), BNSF Railway Company – Terminal

Julie M. Carey

Trackage Rights – The Kansas City Southern Railway Company and The Union Pacific Railroad Company, Verified Statement of Julie M. Carey, February 4, 2019.

Canadian National Energy Board Hearing Order RHW-002-2017, File OF-Tolls-Group2-T309-2017-01 01, TEML Westspur Pipelines Limited, Notice of Complaint pursuant to Part IV of the National Energy Board Act by Crescent Point Resources Partnership, Reply to Sur-Reply Expert Report of Julie M. Carey, November 23, 2018.

National Energy Board Hearing Order RHW-002-2017, File OF-Tolls-Group2-T309-2017-01 01, TEML Westspur Pipelines Limited, Notice of Complaint pursuant to Part IV of the National Energy Board Act by Crescent Point Resources Partnership, Reply Expert Report of Julie M. Carey (submitted jointly with other subject matter experts), August 31, 2018.

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"Exhibit 2-6 are Highly Confidential and Have Been Redacted Subject to the Protective Order Issued By The Board on December 18, 2014"

PUBLIC VERSION

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

FINANCE DOCKET NO. 32760 (SUB-NO. 46)

**BNSF RAILWAY COMPANY
-- TERMINAL TRACKAGE RIGHTS APPLICATION --
THE KANSAS CITY SOUTHERN RAILWAY COMPANY AND
UNION PACIFIC RAILROAD COMPANY**

**KCS'S OPENING STATEMENT AND EVIDENCE ON COMPENSATION
CONCERNING BNSF'S USE OF THE ROSEBLUFF LEAD**

EXHIBIT C

VERIFIED STATEMENT OF NANCIE G. MARZULLA

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

FD 32760 (SUB-NO. 46)

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**KCS’S OPENING STATEMENT AND EVIDENCE ON COMPENSATION
CONCERNING BNSF’S USE OF THE ROSEBLUFF LEAD**

**VERIFIED STATEMENT OF
NANCIE G. MARZULLA, ESQ.**

My name is Nancie G. Marzulla. I have been involved in litigating takings cases—seeking compensation for property owners in condemnation proceedings—for over 30 years. I am a founding partner of Marzulla Law, LLC, a Washington, D.C.-based law firm. My practice since 1997 has focused on litigating inverse condemnation (takings) cases in the U.S. Court of Federal Claims, which has exclusive jurisdiction to award compensation (money damages) against the federal government. My biography is attached as Exhibit 1.

I have devoted most of my professional career to researching, analyzing, and briefing issues involving the federal government’s power to condemn private property and the compensation due when condemned. To assist the Board in determining the compensation required in this case, I offer this verified statement on the measure of compensation required in condemnation cases.

1. The Board is required to provide KCS just compensation, which is the controlling principle in condemnation proceedings

The Board is forcing one rail carrier, the Kansas City Southern Railway Company (KCS), to provide trackage rights to another rail carrier, BNSF, over jointly-owned track known as the Rosebluff Lead. As the Board has stated: “[I]f, as here, the rail carriers cannot agree on the terms of compensation for use of terminal facilities, ‘the Board may establish . . . compensation for such use under the principle controlling compensation in condemnation proceedings.’”¹

As an expert in the law of condemnation, I can confirm that the controlling legal principle, universally applied in all condemnation cases, is that the owner is entitled to “just compensation”—a principle set forth directly in the Constitution itself: “[N]or shall private property be taken for public use, without just compensation.”² As its language indicates, and as the Supreme Court has frequently noted, this provision does not prohibit the taking of private property but instead places a condition on the exercise of that power.³ “Thus, government action that works a taking of property rights necessarily implicates the ‘constitutional obligation to pay just compensation.’”⁴

¹ Surface Transportation Board Decision, FD 32760, slip op. at 3, 11 (Feb. 21, 2020) (quoting 49 U.S.C. § 11102(a)).

² U.S. Const. amend. V.

³ See *Williamson Cty. Reg’l Planning Comm’n v. Hamilton Bank of Johnson City*, 473 U.S. 172, 194 (1985); *Hodel v. Va. Surface Mining & Reclamation Assn.*, 452 U.S. 264, 297, n. 40 (1981); *Monongahela Navigation Co. v. United States*, 148 U.S. 312, 336 (1893).

⁴ *First English Evangelical Lutheran Church of Glendale v. L.A. Cty., Cal.*, 482 U.S. 304, 315 (1987) (quoting *Armstrong v. United States*, 364 U.S. 40, 49 (1960)).

By limiting compensation to three specific cost elements, the *SSW Compensation* standard violates the statutory mandate that the Board applies, in this case, the same compensation principle that the courts apply in condemnation proceedings. That principle is just compensation. Here, the Board has taken KCS's right to control entry to and use of its track—which has been described as “one of the most essential sticks in the bundle of rights that are commonly characterized as property.”⁵ By granting BNSF trackage rights and ousting KCS from the exclusive use of its property, the Board has taken and awarded to BNSF a compensable property interest in KCS's trackage. Without acknowledging the taking of this property interest, and placing a market value on it, the Board cannot award KCS the just compensation it would have received in a condemnation proceeding as it is statutorily required to do.

Under 49 U.S.C. § 11102(a), the Board must apply the same compensation principle that a court would; in fact, the Supreme Court has declared that the determination of just compensation is solely a judicial function:

By this legislation congress seems to have assumed the right to determine what shall be the measure of compensation. But this is a judicial, and not a legislative, question. The legislature may determine what private property is needed for public purposes; that is a question of a political and legislative character. But when the taking has been ordered, then the question of compensation is judicial.⁶

As the Supreme Court has further explained, “a ‘condemnation’ proceeding is commonly understood to be an action brought by a condemning authority such as the

⁵ *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 433 (1982).

⁶ *Monongahela Nav. Co. v. United States*, 148 U.S. 312, 327 (1893).

Government in the exercise of its power of eminent domain.”⁷ Condemnation is “a judicial proceeding instituted for the purpose of acquiring title to private property and paying just compensation for it.”⁸

In *Kirby Forest Indus. v. United States*,⁹ the Supreme Court described in some detail the three types of direct condemnation proceedings. The most common is the “straight condemnation,” now governed by Federal Rule of Civil Procedure 71.1, which the Court explained

requires the filing in federal district court of a “complaint in condemnation,” identifying the property and the interest therein that the United States wishes to take, followed by a trial before a jury, judge, or specially appointed commission-of the question of how much compensation is due the owner of the land.¹⁰

The *Kirby* court also noted that a more expeditious procedure is the “quick take” authorized by 40 U.S.C. § 258a, empowering the United States to “deposit in the court, ‘to the use of the persons entitled thereto,’ an amount of money equal to the estimated value of the land”¹¹ and acquire immediate ownership of the condemned property.¹² The Court further noted that Congress also “enacts a statute appropriating the property immediately by ‘legislative taking’ and setting up a special procedure for ascertaining, after the appropriation, the compensation due to the owners.”¹³

⁷ *United States v. Clarke*, 445 U.S. 253, 255 (1980).

⁸ *Id.* at 254.

⁹ 467 U.S. 1 (1984).

¹⁰ *Id.* at 4.

¹¹ *Id.* (quoting 40 U.S.C. § 258a).

¹² *Id.*

¹³ *Id.* at 5.

Finally, the *Kirby* court explained the process of inverse condemnations:

[T]he United States is capable of acquiring privately owned land summarily, by physically entering into possession and ousting the owner. . . . In such a case, the owner has a right to bring an ‘inverse condemnation’ suit to recover the value of the land on the date of the intrusion by the Government. . . . Such a suit is ‘inverse’ because it is brought by the affected owner, not by the condemnor.¹⁴

But regardless of the type of condemnation proceeding, the principle controlling the compensation due is always the same because it is mandated by the Fifth Amendment to the United States Constitution, which states “nor shall private property be taken for public use, without just compensation.”¹⁵

2. Just compensation means the full monetary value of the condemned property

A vast body of law, comprised of thousands of condemnation cases and scores of scholarly articles and treatises, defines the just compensation that controls condemnation proceedings. A major tenet of condemnation law is that just compensation requires “the full monetary equivalent of the property taken.”¹⁶ In determining the amount of just compensation due in a condemnation proceeding, the owner “is entitled to be put in as good a position pecuniarily as if his property had not been taken.”¹⁷ In practical terms, “just compensation normally is to be measured by ‘the market value of the property at the time of the taking.’”¹⁸

¹⁴ *Id.* at 5, n.6.

¹⁵ U.S. Const. amend. V.

¹⁶ *United States v. Reynolds*, 397 U.S. 14, 16 (1970).

¹⁷ *United States v. Va. Elec. & Power Co.*, 365 U.S. 624, 633 (1961) (quoting *Olson v. United States*, 292 U.S. 246, 255 (1934)).

¹⁸ *Olson*, 292 U.S. at 255.

The Supreme Court has defined fair market value as “the amount of money ‘which a purchaser willing but not obliged to buy the property would pay to an owner willing but not obliged to sell it, taking into consideration all uses for which the land was suited and might in reason be applied.’”¹⁹ The fair market value standard is favored because it is objective.²⁰ Departure from the fair market value test is required under the Fifth Amendment only when market value cannot accurately or reasonably be determined, or when its application would result in manifest injustice to the owner or the public.²¹

The Federal Uniform Standards for Federal Land Acquisitions (the “Yellow Book”),²² which prescribes appraisal standards for all federal land condemnations, further states that “for just compensation purposes, market value must be determined with reference to the property’s highest and best use, that is, [t]he highest and most profitable use for which the property is adaptable and needed or likely to be needed in the reasonably near future.”²³

The Yellow Book mandates that federal appraisers assist in the condemnation proceeding by providing a sound opinion of market value:

To ensure a fair, objective, and practical standard, federal courts have long held that market value is normally the measure of just compensation. The market value measure has an external validity which makes it a fair measure of public obligation to compensate the loss incurred by an owner as a result

¹⁹ *Grand River Dam Auth. v. Grand-Hydro*, 335 U.S. 359, 367 (1948); *see generally* 4 J. Sackman, Nichols On Eminent Domain § 12.2[1] (3d ed. 1979).

²⁰ *See United States v. 50 Acres of Land*, 469 U.S. 24, 35-36 (1984) (rejecting an alternate method of compensation, the cost of acquiring a substitute facility, as too subjective).

²¹ *See Kirby Forest Indus. v. United States*, 467 U.S. 1, 10 n.14 (1984) (citation omitted).

²² Interagency Land Acquisition Conference, Uniform Appraisal Standards for Federal Land Acquisitions (2016).

²³ *Id.* § 1.4.4.

of the taking of his property for public use. The appraiser's function is to assist in the determination of just compensation by furnishing an opinion of market value. Opinions of market value for federal acquisition purposes must follow federal law to provide a fair measure of just compensation. Otherwise, a finding on the value of a [property interest] that is derived from the application of an improper legal standard to the facts' must be remanded for new factual findings for application of the correct legal standard.²⁴

3. The *SSW Compensation* standard falls short of the just compensation required by the Fifth Amendment in a condemnation proceeding

The standard set forth in the *SSW Compensation* cases²⁵ is not a constitutional just compensation standard—so it is not consistent with the compensation principle controlling in condemnation proceedings that the Board is required to use.²⁶ The *SSW Compensation* standard includes only three factors: (1) the variable cost incurred by the owning carrier due to the tenant carrier's operations over the owning carrier's track; (2) the tenant carrier's usage-proportionate share of the track's maintenance and operation expenses; and (3) an interest rental component designed to compensate the owning carrier for the tenant carrier's use of its capital dedicated to the track.

But the *SSW Compensation* standard does not include the market value of the property interest condemned (trackage rights), nor the monetary equivalent of the property taken. So, while the *SSW Compensation* standard may be a satisfactory

²⁴ *Id.* § 4.1.2 (internal quotations omitted).

²⁵ See *St. Louis S.W. Ry.—Trackage Rights Over Mo. Pac. R.R.—Kan. City to St. Louis*, 1 I.C.C.2d 776 (1984) (*SSW Compensation I*), 4 I.C.C.2d 668 (1987) (*SSW Compensation II*), 5 I.C.C.2d 525 (1989) (*SSW Compensation III*), 8 I.C.C.2d 80 (1991) (*SSW Compensation IV*), & 8 I.C.C.2d 213 (1991) (*SSW Compensation V*) (collectively, the *SSW Compensation* cases), *aff'd sub nom. Union Pac. Corp. v. ICC*, 978 F.2d 745 (D.C. Cir. 1992), *cert. denied*, 508 U.S. 951 (1993).

²⁶ § 11102(a).

ratemaking standard for a public utility, it falls woefully short of the just compensation standard required by the Fifth Amendment and Supreme Court precedent construing the Just Compensation Clause.²⁷

The Supreme Court has squarely held that a railroad right-of-way is private property that cannot be taken without just compensation:

“A railroad’s right of way has, therefore, the substantiality of the fee, and it is private property even to the public in all else but an interest and benefit in its uses. It cannot be invaded without guilt of trespass. It cannot be appropriated in whole or part except upon the payment of compensation. In other words, it is entitled to the protection of the Constitution, and in the precise manner in which protection is given.”²⁸

And the Supreme Court has explicitly held that a railroad has the right to exclude others from its track:

It is not bound to so use its property that others, having no business with it, may make profit to themselves. . . . A railroad company is a purchaser, in consideration of public accommodation and convenience, of the exclusive possession of the ground paid for to the proprietors of it.²⁹

In short, because the Board required KCS to relinquish a portion of the use of its trackage—a compensable property interest—KCS is entitled to the same just compensation it would have received in a condemnation proceeding. Because the *SSW*

²⁷ See, e.g., *Horne v. Dep’t of Agric.*, 576 U.S. 350, 368-69 (2015) (“[O]ur cases have set forth a clear and administrable rule for just compensation: ‘The Court has repeatedly held that just compensation normally is to be measured by the market value of the property at the time of the taking.’”).

²⁸ *Donovan v. Pa. Co.*, 199 U.S. 279, 294 (1905) (quoting *W. Union Tel. Co. v. Pa. R.R. Co.*, 195 U. S. 540, 570 (1904)).

²⁹ *Id.* (internal quotations omitted).

Compensation standard is not just compensation, it is decidedly not the principle a court must apply in a condemnation proceeding to comply with the Fifth Amendment.

Conclusion

Although the application of the *SSW Compensation* standard may reimburse KCS for some of its monetary losses resulting from the taking of its trackage rights, in no way does that standard comply with constitutional requirements, which is the principle controlling compensation in condemnation proceedings. Under the mandate of 49 U.S.C. § 11102(a), the Board is required by both the statute and the Fifth Amendment to provide KCS just compensation for the property taken. To do less is to violate both the applicable statute and the Fifth Amendment.

VERIFICATION

I, Nancie G. Marzulla, declare under penalty of perjury that the foregoing is true and correct.³⁰ Further, I certify that I am qualified to submit this Verified Statement.

Executed on January 20, 2021

A handwritten signature in cursive script, reading "Nancie Marzulla", written in dark ink.

Nancie G. Marzulla

³⁰ In accordance with 28 U.S.C. § 1746(2).

Exhibit 1: Biography of Nancie G. Marzulla

I have been involved in litigating takings cases—seeking compensation for property owners in condemnation proceedings—for over 30 years. I am a founding partner of Marzulla Law, LLC, a Washington, D.C.-based law firm. My practice since 1997 has focused on litigating inverse condemnation (takings) litigation in the U.S. Court of Federal Claims, which has exclusive jurisdiction to award compensation (money damages) against the federal government. I have devoted most of my professional career to cases involving the federal government’s power to condemn private property and the compensation due in such cases.

Prior to joining Marzulla Law as a founding partner, I headed a national, non-profit legal foundation, Defenders of Property Rights, which focused on developing sound legal principles for determining liability and compensation in condemnation proceedings brought by property owners against the federal government. At Defenders, much of my work focused on Supreme Court litigation, in which broad rules of law could be shaped and developed, and in federal courts of appeal. I also wrote and lectured extensively during my tenure at Defenders, teaching continuing legal education sessions and writing articles and commentaries analyzing and commenting on key condemnation decisions. After years of working in the field of condemnation, I co-authored *Property Rights: Understanding Government Takings and Environmental Regulation*, which discussed the constitutional underpinnings and seminal decisions defining the constitutional right to just compensation for the taking of private property rights. I have also testified before Congress and consulted with elected officials about how to provide

through legislation greater protections for property owners in condemnation proceedings. And I have also testified in State legislatures on how to best ensure that compensation afforded property owners complies with applicable constitutional requirements in condemnation proceedings.

I began my legal career working as an attorney in the Civil Rights Division, where I was involved in enforcing the federal Civil Rights laws in the areas of employment, housing, and voting rights. After leaving the Justice Department, I joined the litigation practice at what was then the law firm Verner, Liipfert (and is now DLA Piper).

Currently, I serve as the Co-Chair of the Court of Federal Claims Chief Judge's Advisory Council. Previously, I was the President of the Court of Federal Claims Bar Association. I have received numerous awards from the Court of Federal Claims and the Bar Association for my work at the Court, including the Court's highest award—the Golden Eagle Award—and most recently (October 2020), the James Madison Award. I am also actively involved with the American Bar Association, and currently serve as an editor of a quarterly newsletter for a litigation subcommittee (trial evidence).

I received my B.A. and M.P.A. both from the University of Colorado, and my J.D. from the University of Colorado School of Law, in Boulder, Colorado. I also received a diploma in Advanced International Legal Studies from the University of the Pacific, McGeorge School of Law.